Women's Empowerment in Egypt: Evidence and Potential Sources[*]

Sahar El-Sheneity[**]

1. Abstract

In this paper, a framework for studying women's empowerment (on the individual level) that is adaptable to the Egyptian context is proposed; drawing from but also adding to the international scholarship on empowerment. First, both direct and indirect indicators of empowerment are analyzed using a pilot sample of 2372 ever-married Egyptian women who were surveyed by the Social Research Center (SRC) of the American University in Cairo (AUC) in the summer of 2007. The proposed framework is used in the analysis. Direct indicators are those indicators that could be used as evidence of empowerment while the indirect ones represent potential sources of empowerment. We also study the relation between such direct and indirect indicators in the quest for knowledge on how potential sources have actually translated into evidence of empowerment for the sampled women. This analysis would help in guiding future policies targeting women's empowerment by singling out the most effective potential sources of empowerment.

2. Women's Empowerment

Since ICDP (1994), the concept of women's empowerment has gained lots of attention in population research. Empowerment applies to women as well as other disadvantaged or socially excluded groups, but women's empowerment encompasses some unique elements (Kabeer, 2000; Malhotra and Schuler, 2005): 1) women are a cross-cutting category of individuals that overlaps with all these other groups, 2) household and interfamilial relations are a central locus of women's disempowerment in a way that is not true for other disadvantaged groups, 3) women empowerment requires systematic changes in not just any institutions, but fundamentally in those supporting patriarchal structures.

Section 2.1 introduces different definitions, dimensions and conceptualizations of empowerment. Section 2.2 discusses how these definitions and concepts have been operationalized in measuring empowerment in the international literature, while Section 2.3 discusses these measurements in the Egypt. Section 2.4 introduces the framework that will be applied in this study.

2.1. Defining Empowerment

Kabeer (2000) defines empowerment as "the expansion in people's ability to make strategic life choices in a context where this ability was previously denied to them." This widely recognized definition implies that: 1) empowerment is a process; a change from a condition of disempowerment, and 2) it involves the idea of human agency and choice; because choice necessarily implies available alternatives.

Among these choices, Kabeer distinguishes between first order choices that are strategic life choices and second order ones that have less impact on people's lives. Examples of strategic choices

---

[**] Assistant Research Professor, Social Research Center, The American University in Cairo
 Assistant Professor , Department of Statistics, Faculty of Economics and Political Science, Cairo University

include: livelihood, living arrangements, marriage-related decisions, fertility-related decisions, etc...

In her definition, empowerment has three dimensions: *resources, agency and achievements*.

Resources encompass various human and social resources that enhance the ability to make choice; they form the conditions under which choices are made. Thus some resources can provide enabling or disabling environments for the empowerment process.

Agency is the ability to define one's goals and act upon them; this is the heart of the process through which the process is made. It encompasses the meaning, motivation and purpose that individuals bring to their activities; that is their "power within". This includes both positive and negative meanings of power; the term "power to" defines their life choices and pursue them and "power over" which defines the capacity to impose ones' goals over others against their wishes.

Achievements are the outcomes of choices. Kabeer (2000) points out that choices are central to the concept of power. She points out that there are three qualifications of choice that need to be measured in order to make it relevant to the notion of empowerment. One set of qualifications is the conditions of choice, which refers to the distinction between choices made in the absence, or high cost, of alternatives and those made from the vantage point of alternatives. A second set of qualifications is the consequences of choice, which is sought to distinguish between first order choices and other less strategic choices. The third set of qualifications relates to transformatory significance, distinguishing between choices with potential of challenging and destabilizing social inequalities and those that reproduce these inequalities.

When discussing the dimensions of empowerment, Malhotra and Schuler (2005) emphasize *agency* as the defining criterion for empowerment and refer to examples where access to resources does not lead to greater control over these resources. They ensure that, while *resources* are often critical in ensuring that women are empowered, they are not sufficient.

The framework developed by Alsop and Heinsohn (2005) had two components: *agency* and *opportunity structure*.

Agency is defined as the actor's ability to make meaningful choices; that is the actor is able to envisage options and make a choice. *Opportunity structure* is defined as the formal and informal contexts within which actors operate. Working together, these two factors give rise to different *degrees of empowerment*: the existence, use and achievements of choice.

These degrees of empowerment can be measured by assessing 1) whether the person has an opportunity to make a choice, 2) whether s/he actually uses the opportunity to choose, and 3) once the choice is made, whether it brings the desired outcome.

2.1.1. Domains of Empowerment

When defining empowerment, one has to note that empowerment is a complex process that involves different spheres; each of which has multiple domains by itself. Failing to recognize each of these domains and how they interact together could lead to misleading results. Acknowledging that there are multiple domains of women's lives, one can realize that empowerment is multi-leveled and can be divided into the following four levels (Sen and Batliwala, 2000): 1) family/household, 2) community, 3) market, and 4) state level.

The *domestic* level within the *family/household* refers to gender-biased division of resources and labor; biased access to health, and/or education; restrictions on physical mobility; weaker role in decision making, perception to women's reproductive capacity and sexuality as family property over which women do not have control.

Community level refers to class biases that are particularly oppressive to women; social beliefs, norms, and practices that are biased against women's reproductive and sexual autonomy.

Market level is segmented and gender-discriminatory for land, labor, credit, technology and other resources.

The *state* level relates to the institutional and legal systems or practices on the state level, poorly funded or poor quality government programs and health services.

These levels do not function independently; they are actually closely interrelated.

Alsop and Heinsohn (2005) mention that the complexities of measuring empowerment are dealt with by conceptualizing three different domains: *state*, *market* and *society*. *Society* level includes both *family* and *community* levels. They mention though that in some contexts, it may be necessary to remove or add to these domains.

Since power relations operate on different levels, so does empowerment. Malhotra and Schuler (2005) mention that exactly how these levels are determined varies from one discipline to another. Most disciplines use different levels of aggregation and refer to *micro* and *macro* levels. There is clarity at the highest and lowest ends but much less clarity at the *intermediate* level. That is *micro* level usually includes *individual* level while *macro* level includes *state* level. But where does *family*, *community*, and *market* levels fall seems to differ from one field to another.

Kabeer (2000) mentions that the process of empowerment entails changes at different levels and in different dimensions: change can occur at the level of the individual, in their inner sense of self or in their access to material resource; it can occur in relationships within the family and household; or it can reflect alteration in position in the wider hierarchies of economy and state (Kabeer, 2000).

2.1.2. Multidimensionality

Women may be empowered in one area of life while not in others. Thus it should not be assumed if a development intervention promotes women's empowerment along a particular dimension that empowerment in other areas will necessarily follow. It may or it may not (Malhotra and Schuler, 2005).

This multidimensionality means that women may be empowered within familial spheres without similar gains in political sphere. In terms of practical measurement, however, it is difficult to neatly separate the dimensions.

For example, many aspects of economic or social empowerment overlap considerably with familial dimensions, as in the case of control over domestic spending or savings, or the limitations on mobility or social activities.

Empirical research shows that some dimensions may be more closely interlinked than others. Kishor (2000a) showed that only women's life time exposure to employment and family structure

was correlated with the survival and immunization of their children in Egypt. Jejeebhoy (2000) also found that decision-making, mobility, and access to resources were more closely related to each other than to child-related decision-making, freedom from physical threat from husbands, and control over resources.

Because of this multidimensionality, researchers must be cautious in constructing indexes or scale variables related to empowerment; this may mask different aspects of interventions on distinct aspects of empowerment. A single indicator is not usually sufficient to measure even a specific dimension of empowerment (Malhotra and Schuler, 2005)..

2.2. Measuring Empowerment

Measuring empowerment is not an easy nor straight forward task due to the complexity of the process and its multi-dimensionality. One has to be cautious though that the concept of empowerment only has meaning within its specific local contexts.

At the same time, operational definitions should be consistent for the purpose of international comparisons.

In Household-level studies, there is a tendency to measure agency rather than the process of empowerment itself due to the lack of measurement over time.

There has been a focus on measuring the household decision-making process, financial control and social or familial constraints. There have also been some trials to measure exogenous measures that influence household bargaining power such as assets at marriage, and non-labor income as well as intra-household allocation and control of resources.

Several authors have argued that empowerment as a process can only be measured through proxy indicators, like education and employment. However, an increasing body of research has argued that the commonly used proxy variables are conceptually distant from the dimensions of gender stratification that are hypothesized to affect outcomes of interest in these studies and may be in some cases irrelevant or misleading. The relevance of a proxy measurement may depend on geographic region (Jejeebhoy, 2000), the outcome being examined (Kishor, 2000a), or the dimensions of empowerment that are of interest (Malhotra and Mather, 1997).

2.3. Empowering Egyptian Women

In Egypt, like other Arab countries, there has been more focus on measuring empowerment on the *macro*, rather than *micro* level. This has led to a body of research focusing on provisions and utilization of services, micro credit programs and project assessments, but very little research focusing on the *individual* level; that is how these programs have actually affected women's daily lives.

Govindasamy and Malhotra (1996) studied the relation between women's position and family planning in Egypt. They used Egypt Demographic and Health Survey (DHS) 1988 data.

Mainly, Govindasamy and Malhotra tried to study if women's control over their fertility can be achieved without empowering them in other critical spheres. Specifically, they questioned whether education and employment lead to fertility control. The argument is usually stated that exposure to

education promotes an idealogy of independence and egalitarian marital relationships, resulting in women's greater desire for and ability to practice fertility control. Employment is assumed to increase the opportunity costs of having children, increase women's value and power in the family, giving women greater incentive and ability to practice fertility control.

Kishor (2000a) used Egypt Demographic and Health Survey (DHS) 1995 data to study the links between female empowerment and the survival and health of their infants. In her research, the author noted that one needs to distinguish conceptually between variables that provide direct *evidence* of empowerment, and those that are *sources* of empowerment or those that can be expected to provide an appropriate *setting* for empowerment. According to such conceptualization, most indicators that are commonly used as proxies for female empowerment (like education and work) would fall into one of the latter two categories rather than the first.

Kishor (2000a) used factor analysis and extracted three factors; one for each of the above axes of empowerment. In her indicators, she distinguished between control over *current* and *past* lives. The latter included *indicators* related to the choice of husband and wedding arrangements. Indicators of control over *current* lives mainly include control over household resources besides other decision-making, gender roles and perception indexes.

Results showed that *sources* of empowerment include age at first marriage, education, media exposure, work-related variables and ownership of assets. Favorable *settings* include higher level of parents education and having a high level of communication with husband, while unfavorable settings include high age and educational differences between spouses, living with in-laws and marrying a relative.

Kishor (2000b) used the same data to examine the extent to which the effects on contraceptive use, generally attributed to education and employment, are explained by more direct measures of women's empowerment. Results showed that women empowerment is important in explaining both the need for and use of modern contraceptives, net of any education or employment effects.

Rastogi and Nguyen (2005) used the same DHS 1995 data to study the relation between women status and contraceptive use. They created some indexes of female autonomy: physical mobility index, perceived gender role index, decision-making index, and financial autonomy variables. They studied their relation with modern contraceptive use. Their results showed that decision-making index is the most important dimension of female autonomy in predicting women's use of modern contraceptives. None of the financial autonomy variables were significant.

2.4. Theoretical Framework

Building on the previous review of how empowerment is conceptualized and measured, especially in the framework proposed by Kishor (2000a) for the Egyptian context, a proposed framework for studying empowerment is outlined in Figure 1 (Annex: Section A).

In this framework, *direct indicators* of empowerment are those indicators that provide *evidence* that a woman is empowered; that is they are the outcomes of the empowerment process on women's daily lives. They mainly reflect the woman's freedom of choice and her ability to make such choices. These are the indicators that we will use to define empowerment; they are opt to reflect practices that signify empowerment. That is women will have different degrees of empowerment according to these indicators.

We define a set of indexes of empowerment using these indicators. The weights of these indicators within each index will determined by the data using factor analysis.

Indirect indicators are the *potential sources* of empowerment; that is they are the intermediate step in the process that could lead to empowerment. These are either individual sources relating to one's own characteristics or non-individual ones relating to the woman's surroundings. The latter are *indicators of enabling environments*; those that determine the favorable *settings* that could lead to women's empowerment.

Indicators that are not directly related to the woman's own characteristics are related to her own spouse, family socioeconomic status, or community. In the latter, we want to measure how common it is for women in her community to utilize different services and institutions. The more common it is, the more enabling is her environment. We also try to measure the common gender norms.

Each of the above group of indicators can operate on two levels; the *household* level; that is it related to relations and interactions within the household, and the *community or state* level; which is related to the interaction of women within their local community (neighborhood) or with state institutions. So a woman might be more empowered on the household level than she is on the community or state level or vice versa.

In Kishor's (2000a) framework, it is believed that both the *indirect* indicators of empowerment and the *enabling* environments interact with each other positively. It is difficult to determine which is the cause and which is the effect. The more enabling the environment is, the more prevalent the indirect indicators of empowerment are, and vice versa. That is why in the proposed framework we define them all as indirect indicators. We distinguish though between individual sources and other sources of empowerment.

In the empowerment literature, positive gender values are commonly used as an *evidence* of empowerment. In our framework and adapting to the Egyptian context, we propose using gender values as a *potential source* rather than an evidence of empowerment. Our belief is that having positive gender values does not always translate into the application of such values in ones life; it could be more of an aspiration rather than an implementation. On the other hand, for most Egyptian women, negative gender values are associated with actual implementation of such values in their lives.

Moreover, the proposed framework takes the utilization of services by other women in the community and how it could relate to women's empowerment. This is a typical reflection of the Egyptian society where women are affected by their surrounding environment and tend to follow the dominant norms in such environments rather than defying such norms and confronting their society.

A detailed description of the proposed *direct* and *indirect* indicators is given in Annex (Section A).

3. Research Instrument

The tool developed by the SRC covers a variety of topics. The aim is to provide a more comprehensive overview adding to the current knowledge on women's lives and critical needs as well as the pathways for their empowerment.

The research instrument used in the pilot study consists of three questionnaires: 1) Household Questionnaire used to collect data on background information of the household and select eligible women for individual interviews, 2) Individual Questionnaire for ever-married women aged 15-60, and, 3) Individual Questionnaire for never-married women aged 25-60 (results from which are not discussed in this paper).

The Ever-Married Questionnaire
Among the topics that are covered in this questionnaire are marriage process, divorce and widowhood experience, burdens of daily lives, social assets and networking, access and utilization of different resources, accessing the justice system, work and family relations, violence, harassment, gender values and attitudes, psychological status, leisure time, decision making and mobility.

The data collected via this questionnaire can help in building a knowledge base on women's involvement in decision-making and mobility, participation in social activities, networking, control over household resources, exposure to violence, as well as economic participation.

4. Sampling Design

The pilot study conducted by the Social Research Center (SRC) aimed at piloting the suggested tool in three different settings in Egypt. These settings were chosen to be as representative as possible of the nation. Multistage stratified sampling scheme was applied. Cairo was chosen as a representative of Urban Governorates, Sharkeyah as a representative of Lower Egypt, and Menya as a representative of Upper Egypt.

The designed total sample size was 2400 observations equally split across the three settings as follows:

1- Four sub-regions (*sheyakhas*) were selected from Cairo. Two *sheyakhas* whose socioeconomic standards and services were below average and two above average were selected; 200 households were selected from each *sheyakha,*

2- In Sharkeyah, the sample was distributed between urban and rural to be as close as possible to their distribution in the Egypt Census 2006. Accordingly, the sample was split to 600 observations from rural areas and 200 from urban ones,

3- In Menya, the sample was also distributed between urban and rural to be as close as possible to their distribution in the Egypt Census 2006. Accordingly, the sample was split to 600 observations from rural areas and 200 from urban ones.

Within each of these areas, a systematic random sampling scheme was applied. Interviewers first collected data on the household, then used the household roaster to select eligible women for ever and never-married interviews. One ever-married and one never-married woman were selected from each household whenever applicable. In cases where the household had more than one woman eligible for the ever or never married interviews, interviewers were asked to select only one woman for each interview using Kish table for random selection. Table B.1 gives the distribution of the sample successfully interviewed. A total of 2,402 households, with a total of 12,726 individuals, 2,372 ever married women (aged 15-60) and 130 never married women of age 25-60 were successfully interviewed. Table B.2 gives the distribution of the sample according to urban or rural residence as well as the distribution of urban and rural regions in Lower and Upper Egypt according to the Egypt 2006 census.

Since measuring work and its relation with women's situation and living conditions is one of the primary goals of this pilot study, a screening approach for working women was adopted in two areas in Cairo; namely in *Wayly* and *Basateen*. In these two areas, households were screened for working women. Interviewers went to randomly selected households as described by the scheme mentioned before. Here, they asked if this household had a woman who had worked during the two previous year or not, if not, no interview was conducted for that household. This scheme implies that the 387 women successfully interviewed in these areas have all worked during the two years preceding the survey.

Representation of the Sample
As mentioned earlier, the proposed tool was piloted in three settings in Egypt. The settings were chosen to be as representative as possible of Egypt, but *this sample is not a national sample*. Thus one needs to be careful in interpreting results drawn from the data. *No national numbers* could be drawn from this sample. We need to be careful also when applying any statistical techniques to this sample since it is not self weighted and does not represent overall Egypt. Also, the screening-for-working-women technique that was applied in half the sample in Cairo makes this part of the sample "a random sample of women who had worked during the two years preceding the survey" in these areas, but not a "random sample of women" in these areas.

5. Profile of Ever Married Respondents

Table B.3 shows the background and demographic characteristics of ever married women interviewed in the study. 84% of respondents in Cairo were married at the time of the interview. In Sharkeyah, 91% of respondents were married compared to 88% in Menya. The percent of divorced women is the highest in Cairo (5%), followed by Menya (2.38%) then Sharkeyah (1%). The image is complemented when we see that the percentage of women marrying more than once in rural Menya is high (about 8%) compared to Sharkeyah and screened areas of Cairo, and those ever divorced constitute 8% of the sample in rural Menya. This implies that a high percentage of divorced women in rural Menya gets remarried. The same pattern is seen in non screened areas of Cairo where 11% are ever divorced and in urban Sharkeyah (6%).

The percentage of ever widowed in all areas is very close to that of the currently widowed women. This is an indication that widowed women do not tend to remarry as much as divorced women.

In terms of fertility, 34% of women in screened areas of Cairo have two children and 30% have three, compared to 18% and 23% in Sharkeyah, and 13% and 15% in Menya. On the other hand, 20% of ever married women in non screened areas of Cairo have 5 or more children, compared to 25% in Sharkeyah, while this percent rises to 39% in Menya. When taking into consideration that the sample distribution showed that working women in screened areas of Cairo were older in general, there is an indication that women who had worked during the two years preceding the survey in this area have the lowest fertility among the sampled areas.

The least percentage of school attendance shows in rural Menya where only 41.5% of respondents ever went to school. Among those who go to school, 20% have only been to primary education. This makes the total of those with no education or primary education in rural Menya 79%.

In all regions, once a girl passes the primary education, the percentage dropping out of education decreases. This is shown in the percent having preparatory education, which is always lower than

those with secondary education. For example, 28% of respondents have secondary education in Cairo compared to 6% with preparatory. This pattern also applies to Sharkeyah and Menya, but the percent having higher education in Cairo (39%) is phenomenally higher than in the two other areas (6% in Sharkeyah and 3% in Menya). This is attributed to the higher percent of women with university education or higher in screened areas (67%).

Traditions and norms play their role in girls' school attendance and dropouts. 27% of respondents in Menya said that they have not attended school or dropped out because it is the norm that girls do not attend school in their family. Affordability of expenses was also the most commonly mentioned reason for not attending or dropping out of school (21% in Cairo, 18% in Sharkeyah and 26% in Menya). Not liking school was the main reason for dropout in non screened areas in Cairo and in Sharkeyah (25% in both areas).

6. Women's empowerment: Findings

For the purpose of this paper, only variables on the individual level will be considered for the analysis. According to the framework (Annex: Section A), all the indirect indicators of empowerment are assumed to have a positive correlation with the direct ones; that is potential sources are actually utilized and translate into evidence of empowerment. Tables C.1 and C.2 provide a summary description of direct and indirect indicators used in the analysis. We would like to investigate the multidimensionality of empowerment using the proposed indicators to understand how such indicators (both direct and indirect) correlate together to represent the different dimensions of empowerment. For this purpose, factor analysis was used to investigate such a correlation structure.

The results of the factor analysis will help us summarize and reduce the indicators of empowerment along broad dimensions, which will, in turn, make analysis easier. For instance, a number of the indirect indicators of empowerment concern whether the respondent believes stereotypical norms about gender roles, such as whether the husband has the right to prevent his wife from working or whether the husband has the final decision in family planning. Rather than analyzing the results of each of these indicators separately, factor analysis will assist in creating an index that summarizes a respondent's response on all of these similar indictors into a single score. Each of the factors resulting from the factor analysis is given a label and a description (Table C.3-C.6) that best describes the dimension of empowerment that the factor appears to summarize.

6.1 Evidence of empowerment
Following the proposed framework, a set of variables representing direct and indirect indicators were created. All variables representing the direct indicators of empowerment were first checked for collinearity using principal components and variables causing collinearity were dropped. All remaining non collinear variables were entered together in a factor analysis using principal component factor method. Rotated factor loadings were examined and those higher than 0.4 were considered for interpretation. Variables with very high communalities were dropped. The first eight factors were retained. They explain 56% of the total sample variance (N: 2366). Table C.3 gives the factor loadings while Table C.4 gives their description.

Autonomy
Analysis of the data suggests that *autonomy* is represented in three factors. Factor 1 represents dimensions of autonomy that mainly relate to mobility and freedom to make daily or more frequent/common choices. For Factor 1, the analysis showed that having the freedom to open a

savings or bank account, not needing permission to do leisure activities, to use health services as well as other services, to borrow money are all correlated. Each of these indicators may be said to measure an aspect of empowerment along the non-financial autonomy dimension. Thus, the label of "Autonomy 1" is best used to describe this factor. Respondents with higher scores for this factor can be said to have higher levels of empowerment along the autonomy dimension while individuals with lower scores on this factor have lower levels of empowerment along this dimension.

Factor 8, which we label as "Autonomy 2", concerns the ability or inability to seek health services alone.

Participation in elections (both with and without the need for permission) as well as self dependence in deciding on who to vote for are correlated in Factor 7. This factor represents another dimension of Autonomy which is *political* and could be labeled "Political Autonomy".

Factor 2 concerns whether women get help or not with daily household tasks. The higher a woman scores in this factor, the higher the level of help she is getting.

Involvement in less-frequent/strategic decisions
Involvement in decisions that are made less frequently and are sometimes called strategic or first order choices represents another dimension of empowerment. For example, decisions related to living arrangements at time of marriage, having a child as well as involvement in decisions regarding buying household durables and assets are all correlated as shown in Factor 3 "Decisions 1" and could be used as an evidence of empowerment.

On the other hand, being involved in the decision about the place of last delivery, children's education, being consulted in sons' and daughters' marriages are all correlated as well in Factor 6 "Decisions 2".

Financial and work-related autonomy
The dimension of financial autonomy is represented in Factors 4 and 5. Factor 4 focuses on having a bank or savings account and managing it, as well as work-related autonomy, which refers to involvement in the decision to work and having non-financial benefits of work. Factor 5 focuses on managing household budget; namely being able to freely buy things for herself and having the freedom to seek medical consultation.

Looking at the previous factors, the complexity of the empowerment process is evident. Autonomy factors highlight such complexity since they represent a mixture of decision-making and mobility. This is attributed to the association between higher levels of mobility and the freedom to make the decisions of being mobile to different places. Seeking permission for mobility means the lack of ability to be in charge of oneself and to make the decision to go out independently.

To sum up, evidence of empowerment is represented by three main dimensions: *Autonomy* which is reflected in respondents' involvement in more common decisions, *Involvement in less frequent* (strategic) decisions, and *financial and work-related autonomy.*

For further analysis, we use three factors to represent each of the dimensions of empowerment mentioned before; *autonomy*, *involvement in less frequent decisions* as well as *financial and work-related autonomy.*

Factor 1 is used to represent the autonomy dimension since it had the largest variability and correlation with potential sources of empowerment compared to the other autonomy factors. We label it "Autonomy Index (AI)".

Both Factors 3 and 6 were added together with equal weights to form a "Decisions Index (DI)", while Factors 4 and 5 were added together using equal weights to represent "Financial and Work-related Autonomy Index (FWAI)".

The range of each of the above indexes was split into six parts based on the distance from the mean (standard deviation from the mean). The percentage distribution of the three indexes is given in Figure 1.

According to the Autonomy Index, 61% of respondents scored below the average and could not be considered empowered to any extent, while 38% scored above average. Only 22% fell in the two highest groups above the average and could be considered empowered from the dimension of autonomy.

Figure 1: Distribution of Indexes of Empowerment (Degrees of Empowerment)
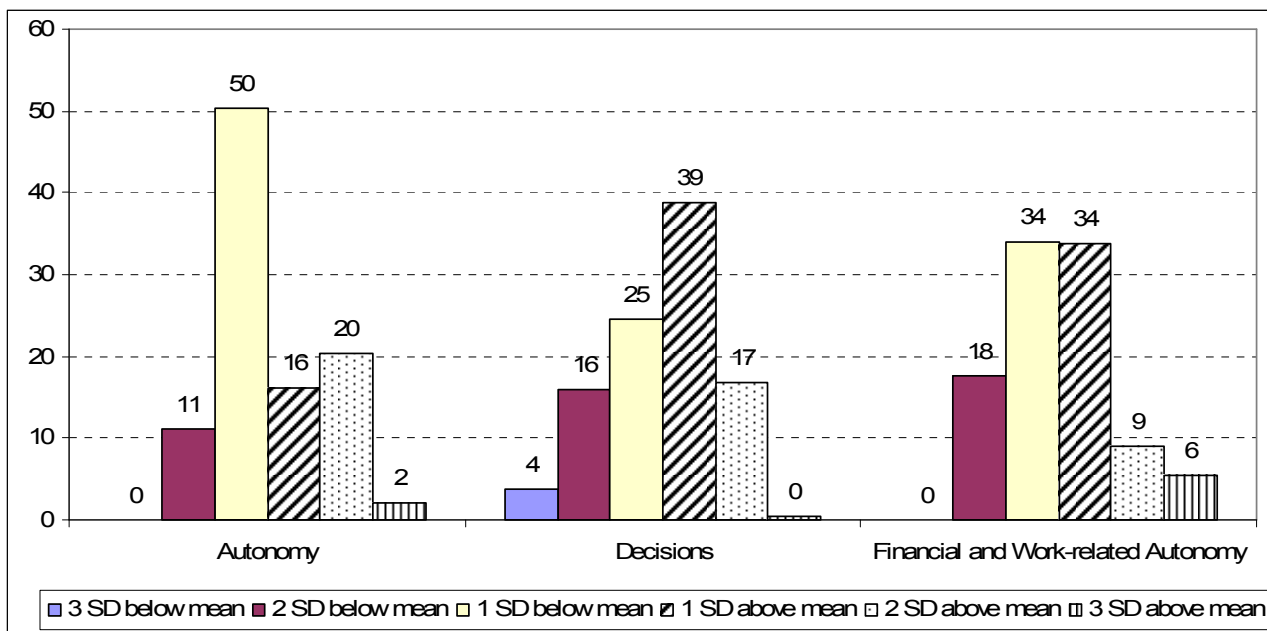
When it comes to the Decisions Index, 56% scored above average and 17% had scores in the two highest groups above the average. Thus, implying higher levels of empowerment in terms of the dimension of involvement in decision-making processes in their families compared to the autonomy dimension.

In the Financial and Work-related Autonomy Index, 49% scored above average while only 15% fell in the two highest groups above the average. One has to note though the distribution of this index is affected by the screening approach adopted in the survey which lead to higher percent of working women with higher levels of financial and work-related autonomy (since they already had higher levels of education and SES). If this index is weighted to down weigh the effect of the screening approach, those at the top two groups drop to 9% instead of 15%.

These results show that the dimension of autonomy seems to be showing the least degrees of empowerment of the sampled women (61% below average), while the decisions index is the one showing highest levels of empowerment (56% above average). Financial and work-related autonomy falls in the middle (49% above average). In all three indexes, only few of the respondents showed high levels of empowerment.

It is worth noting that respondents who scored high in one index did not necessarily score high in the other indexes. Indexes of "Autonomy" and "Financial and Work-related Autonomy" showed the highest association with 5% scoring two points above average in these indexes together, compared to 3.7% scoring high in both Autonomy and Decisions indexes. Only 0.3% scored high in all three indexes.

Such a lack of association shown above verifies the multidimensionality of empowerment and that it can not be represented by just one index that captures all dimensions together since they do not always go together in the same direction, and if they do, then it is not necessarily with the same relative magnitude.

6.2 Potential Sources of empowerment

Gender values
When analyzing sources of empowerment, indicators relating to opinions on spousal relation and reactions to different marital problems were created. Another set of indicators representing the differences in responses to the same problem for both husband and wife were created. For example, if a woman said that wife should be patient if her husband is infertile while the husband should react differently (like marry someone else for e.g.) if his wife is infertile then this is defined as a difference in response.

Averages of variables representing positive gender values and beliefs about marital relations were computed for women living in the same area to represent the dominant gender values. There was an extremely high correlation between what women expressed and the average computed for women in their own neighborhoods. This high correlation would cause mathematical problems. Thus, we decided to use the variables reflecting the woman's opinion only in further analysis but the existence of such relation stresses the importance of dominant beliefs about gender values and marital relations.

All proposed indicators relating to opinions on spousal relation and reactions to different marital problems as well as differences in responses for some problems were entered in factor analysis using principal component factor method. The first seven factors were retained. They explain 55% of the total variance (N: 2369). Table C.5 gives the factor loadings while Table C.6 gives their description.

Opinions on spousal relation are reflected in Factors 1 and 2, while attitudes towards possible exit routes to marital problems are reflected in factors 3-5 and 7. Factor 6 represents a mixture of both.

Factor 1 mainly concerns the respondent's views on stereotyped norms about marital relations and gender roles that give husbands more advantages in spousal relations. These stereotypes include: husband's right to prevent his wife from working, working women giving part or all of their earnings to their spouses, wife must bear another child if the husband desires one and husband

having the final say in sons and daughter's marriages. It also shows that these views are also correlated with opposing female circumcision.

Factor 2 concerns health and fertility related behaviors like women's taking care of their health and not bearing too many children, using contraceptives and seeking medical consultation when sick.

Factor 3 concerns women's responses in particular situations of marital conflicts such as spouse's beating of children, his unemployment, or his failure to devote adequate time to the family.

Factor 4 concerns attitudes and reactions towards other marital problems like husband's marriage to someone else, flirting with other women or abandonment.

Factor 5 shows the correlation between respondent's differences in responses towards husband's not respecting wife's family and vice versa, possible reactions if he does not take her opinion into consideration in decision making and not giving her enough money.

Factor 6 shows the correlation between respondents' difference in attitudes towards husband's infertility compared to wife's infertility and possible reaction to spousal violence.

Factor 7 shows the correlation between difference in responses towards unsatisfactory sexual relation within marriage.

For further analysis, the previous seven factors were all added together with equal weights to form an index of gender values (GVI). According to this index 41% scored the average or below, while 48% scored one standard deviation above average, and 9% scored two SD above average.

Before using this factor in further analysis, we need to stress that in the Egyptian context, positive gender values are not always associated with implementation of such values in one's life. They sometimes reflect aspiration of such values being implemented rather than actual implementation. On the other hand, negative gender values are usually associated with implementation of such values. It is for this reason that the proposed framework assumed that these values are a potential source of empowerment rather than an evidence contrary to what is commonly assumed in the literature.

To sum up, positive gender values are outlined by four main dimensions that reflect attitudes rather than actual implementation: *opposing stereotypes* about gender roles within the family; *positively reacting to different marital problems;* having a *non-gendered attitude* towards spouses' reaction to the same problems; and having *positive* attitudes towards *fertility-related* behaviors.

Work-related values
Another set of values are considered here; they relate to respondent's opinion on work and working women. Namely, that a working woman has more say in her household even if she works inside her home, has more say in her household if she works outside her home, can better care for her children, can better care for her household, and that she can protect her virginity as well as a non working woman. A scoring index was created that ranges from 0 to 5, with 0 meaning that the answers were all not in favor of the statements, and 5 meaning that all answers were in favor of the statements. Thus the higher the score, the more positive is the respondent's attitude towards work and working women. Results show that 36% of respondents showed the highest positive attitude towards work and working woman, while 38% scored 3 out of 5.

Other sources
The other sources of empowerment are mainly: *Background variables* including region of residence, socioeconomic status of the household (described below), father's education, respondent's marital status, education, relation to husband, his education, spousal age and educational difference, and current living arrangements. It is assumed that living in enabling communities (regions), households with better socioeconomic status are potential sources of empowerment. Also, fathers and spouses with higher education, spousal compatibility in terms of age and education, as well as living on their own are also potential sources of empowerment. No assumption is made in our analysis in terms of husband being a relative because it could act both ways depending on the other controls.

Demographic variables are current age, age at first marriage and number of children. The assumptions regarding age and number of children are not straight forward. It is argued in the literature both ways; empowerment increases with age and it could be argued that older women become less economically independent and thus are less empowered compared to middle aged women. The same assumption applies to having children (with special value given to having boys) since having more children can be a potential source of empowerment in certain regions and settings while having too many could be a burden and affects economic participation leading to less empowerment. As for age at first marriages, our assumption is that women marrying too young are less empowered.

Other variables like employment status, working for cash, work period, sector of employment (namely government or private), reading papers and using internet, participation in social activities and organizational, and ownership of assets are assumed to have a positive relation with empowerment.

All the above variables of sources of empowerment (except for those relating to opinions and values) will be examined directly rather than in factors. This will help give better evidence for policy makers.

Living conditions
Women's living conditions is measured by their region of residence and the status of their households. The latter is usually measured via the wealth index as represented by ownership of assets, and amenities in the household. Variables on the ownership of assets as well as housing unit characteristics (type of sewage, fuel, toilet facility, water source, and persons per room) were all entered into factor analysis using principal components factors method. The first factor explained 21% of the total variance. It was retained after rotation and scored to create an index of household socioeconomic status.

To explore the relation between household socioeconomic status (SES) and region of residence, the generated index was regressed on region. Table C.7 gives the results (Adjusted R-squared = 0.70). It shows that all regions differ in their SES level and that the one associated with the highest SES is the screened area of Cairo. This is expected since this area was originally selected on the basis of its SES. Regression results show that non-screened areas of Cairo have the second highest SES, followed by urban Sharkeyah, then rural Sharkeyah. The latter has a large span across different levels of SES. Menya comes last both urban and rural. This ranking of regions according to the SES index is expected and follows the well known ranking in Egypt where areas in Upper Egypt are more deprived than those in Lower Egypt and Urban Governorates.

6.3 Relation between potential sources and evidence of empowerment

Now that factors reflecting evidence of empowerment have been identified and potential sources of empowerment discussed, we would like to explore the relation between potential sources and evidence of empowerment. That is we would like to profile women having these sources and see if they are empowered or not. We explore each of the above sources separately since the data is too small to consider multivariate analysis where the cells might be too small for reliable results.

Region of residence and SES
The distribution of respondents' region of residence according to the quartiles of the indexes of empowerment is given in Figure 2. It is observed that almost 70% of those living in the screened areas of Cairo had the highest score in the financial and work-related autonomy index. This is expected since all these respondents are currently working or have worked during the two years preceding the survey. Also, 59% and 64% of those living at the screened areas of Cairo were at the top two quartiles of the autonomy and decisions indexes respectively.

On the other hand, those in the non-screened areas of Cairo also had high scores in the autonomy (66% at the top two quartiles) and decisions (67% at the top two quartiles) indexes. This again verifies that acquiring high levels of empowerment in one dimension is not necessarily associated with high levels in other dimensions. Respondents living in urban Sharkeyah showed the highest score in the decisions index where 44% were in the top quartile while 44% of respondents in rural Menya in the lowest quartile.

On the overall, respondents living in non screened areas of Cairo scored better in the autonomy and decisions index than they did in the FWAI while those in screened areas of Cairo scored best in the FWAI. The pattern for those in Sharkeyah and Menya is not consistent.

As for SES (Figure 3), those in the lowest two quartiles of the SES index showed the same pattern in all three indexes of empowerment (within each index). They were mostly equally distributed across all levels. Significant differences showed for respondents at the highest levels of SES especially in the financial and work-related autonomy index. 55% of respondents having the highest level of SES were at the highest quartile in the financial and work-related autonomy index.

Level of education
Figure 4 displays the distribution of respondents' level of education according to the different empowerment indexes. One can easily observe that it is only the highest levels of education (university or higher) that seem to make a significant difference. The relation is most evident in the financial and work-related autonomy index where 65% of respondents who had university education or higher fell in the top category of the index.

Work for cash
When it comes to working for cash during the two years preceding the survey (Figure 5), the relationship is most evident for the financial and work-related autonomy index as expected where 52% of respondents who worked for cash fell in the highest category of the autonomy index. The relation is also evident but to a smaller extent for the decisions index where 62% of respondents who worked for cash fell in the highest two groups of this index.

It is worth-mentioning that the data showed that the longer the work period, the higher is the score in all three indexes.

Figure 2: Distribution of Region of Residence according to Quartiles of Empowerment Indexes

Distribution of Region according to Autonomy Index

Distribution of Region according to Decisions Index

Distribution of Region according to Financial Autonomy Index
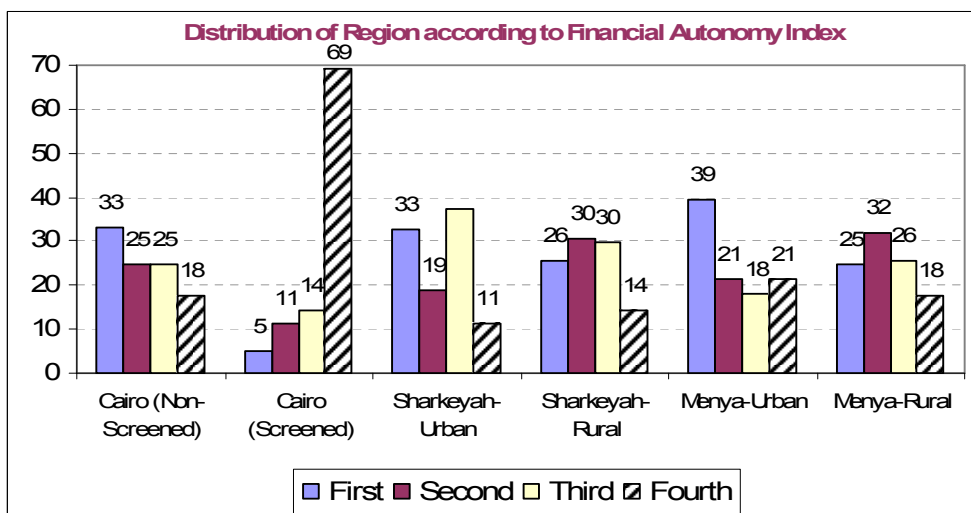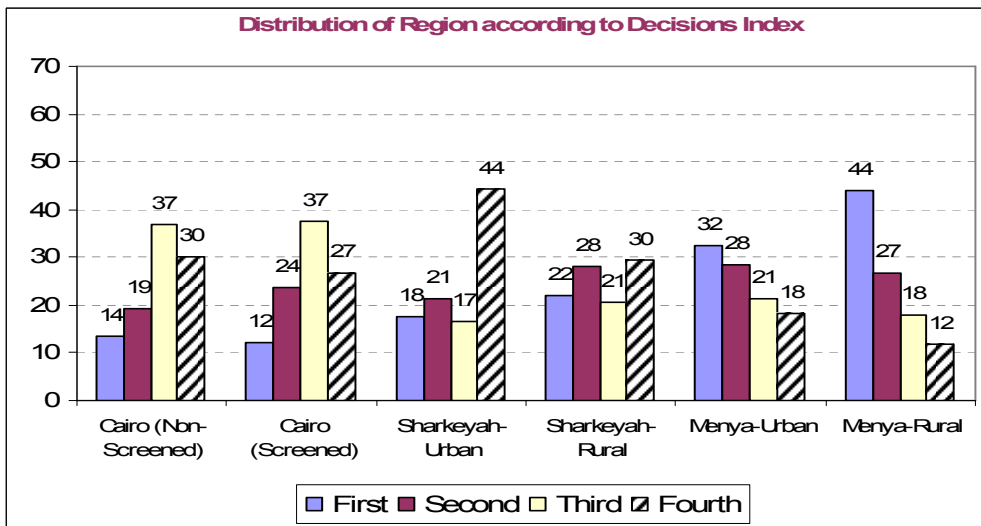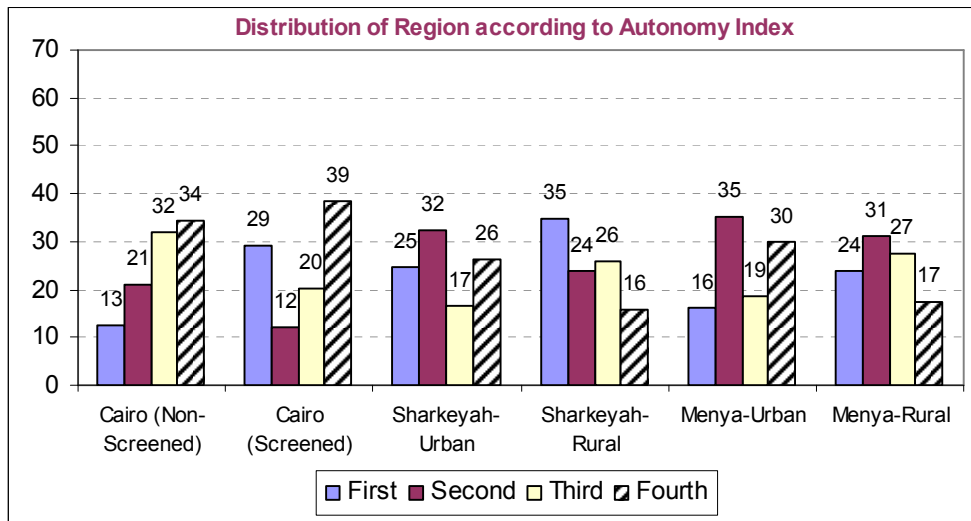
Figure 3: Distribution of Quartiles of SES Index according to Quartiles of Empowerment Indexes

Distribution of SES Index according to Autonomy Index

Distribution of SES Index according to Decisions Index

Distribution of SES Index according to Financial Autonomy Index
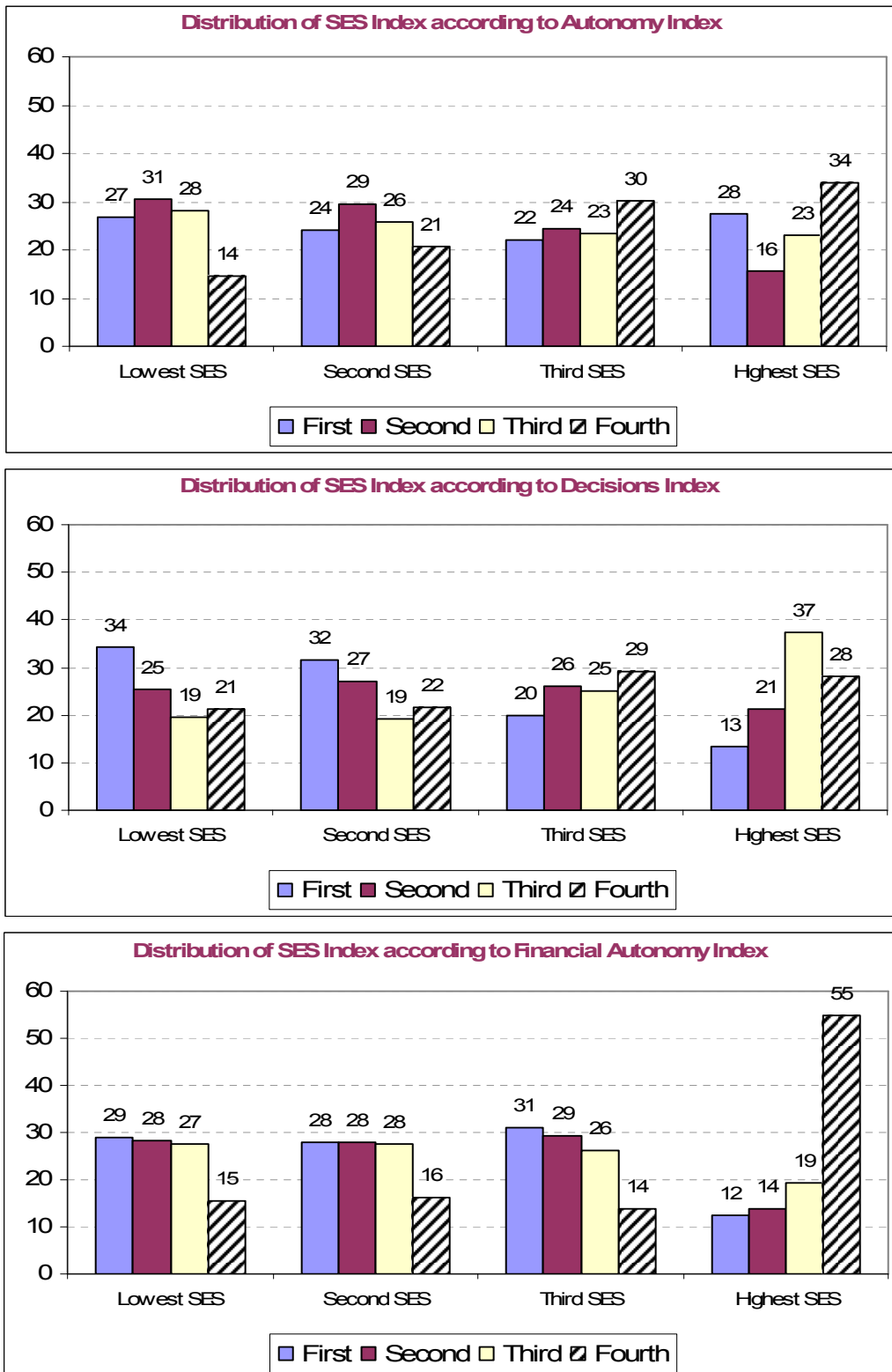
Figure 4: Distribution of Level of Education according to Quartiles of Empowerment Indexes

Distribution of Levels of Education according to Autonomy Index

Distribution of Levels of Education according to Decisions Index

Distribution of Levels of Education according to Financial Autonomy Index
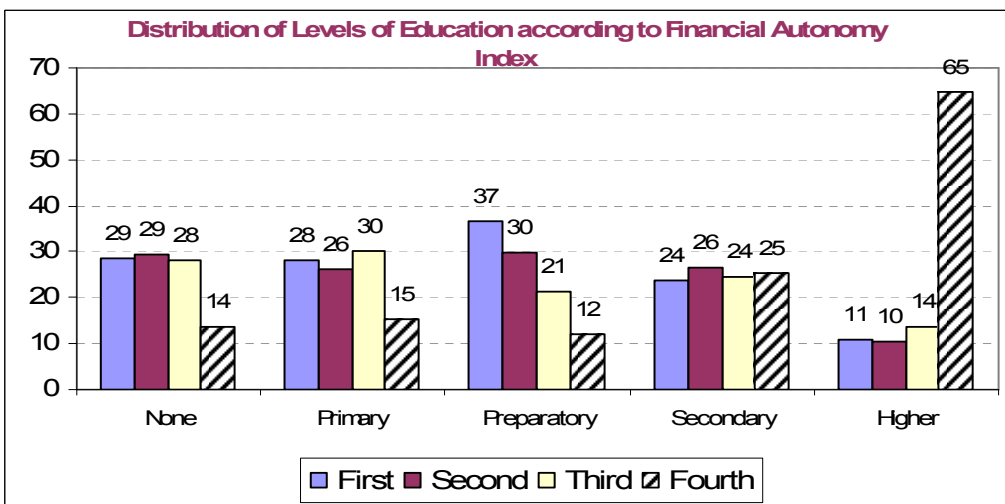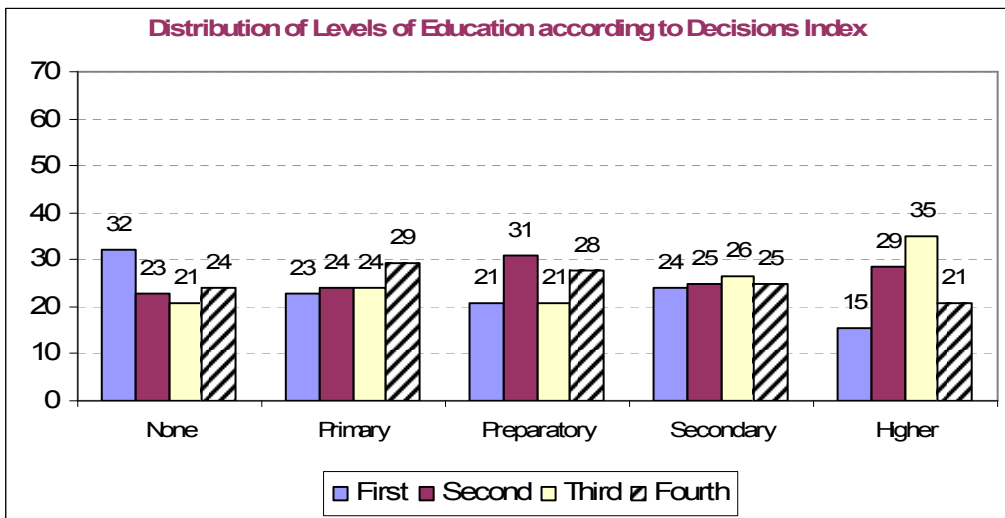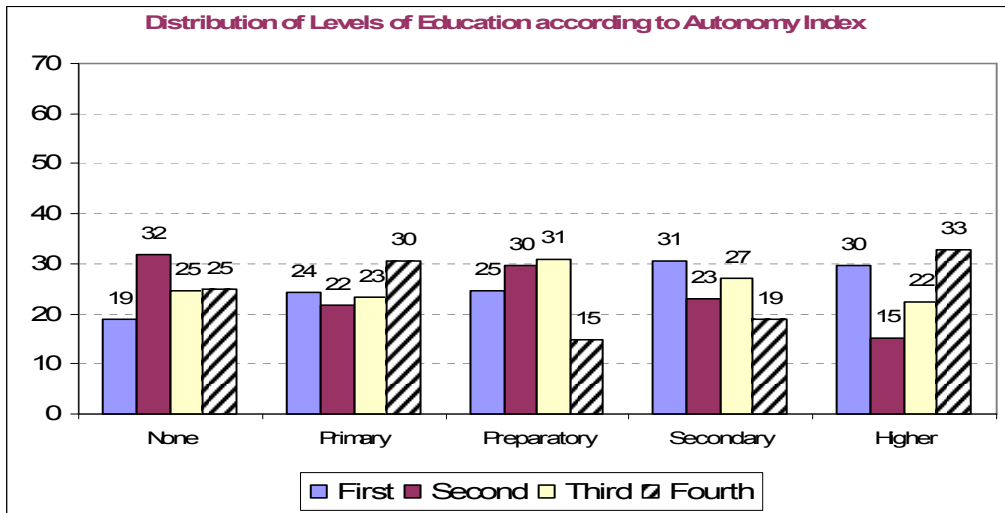
Figure 5: Distribution of Respondents who Worked for Cash[1] according to Quartiles of Empowerment Indexes

Distribution of Respondents who Work for Cash accoding to Autonomy Index

Distribution of Respondents who Work for Cash accoding to Decisions Index

Distribution of Respondents who Work for Cash accoding to Financial Autonomy Index
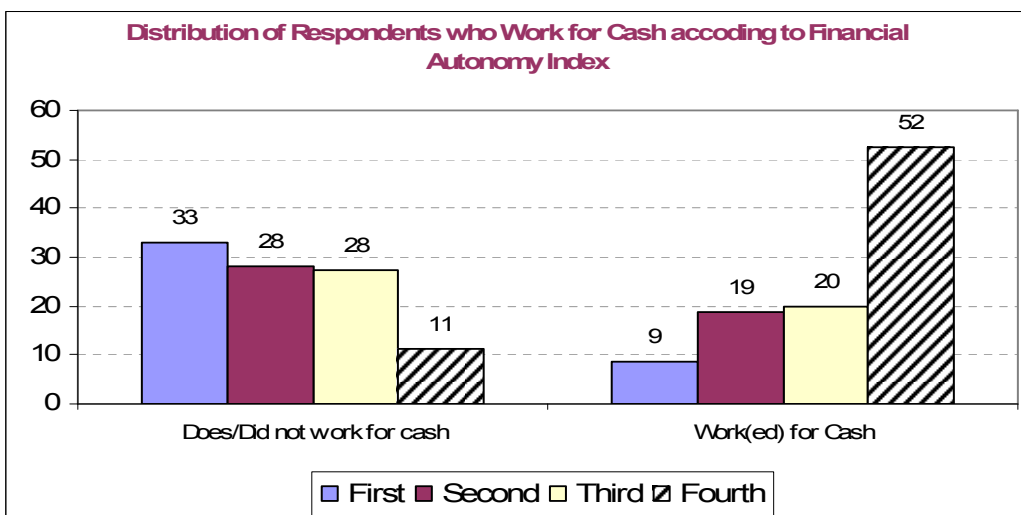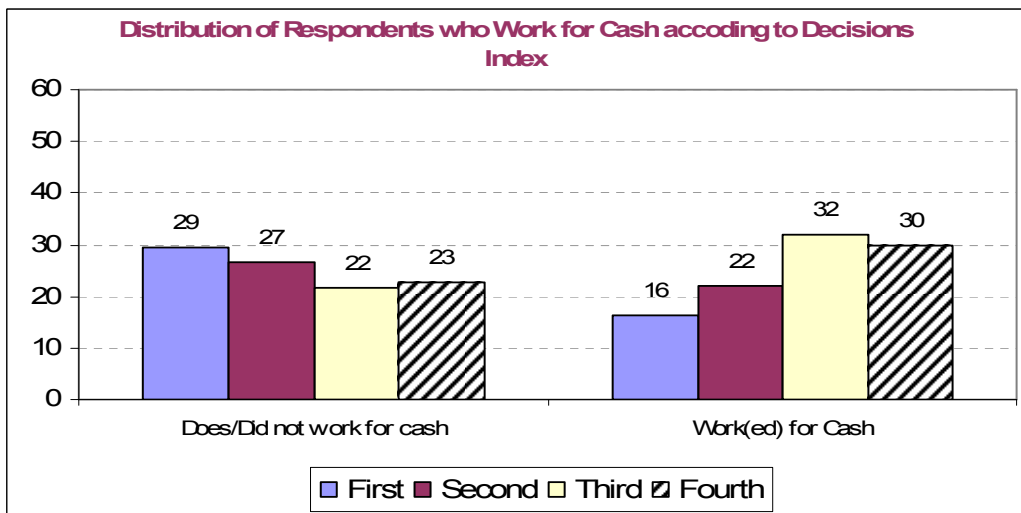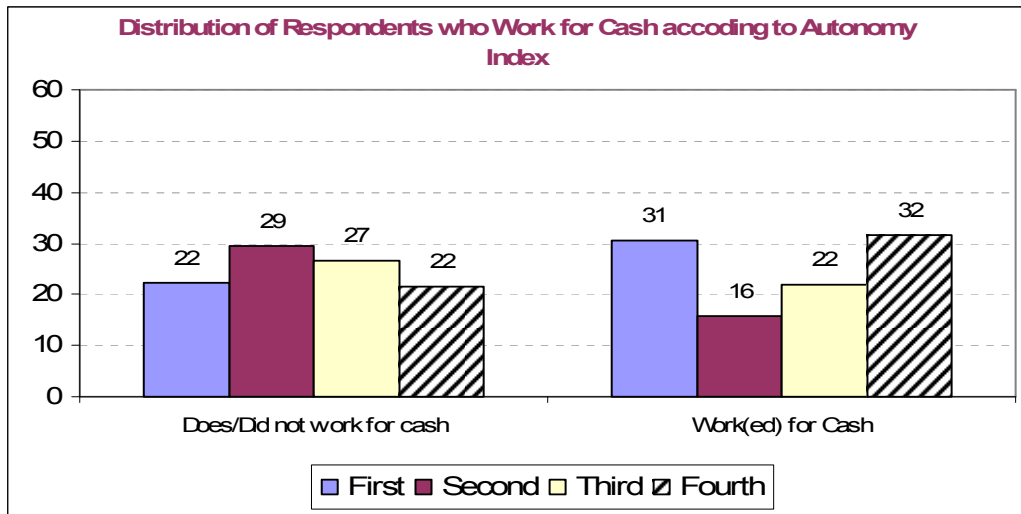
1 Worked for cash during the two years preceding the survey

El-Sheneity (2009) performed an in depth analysis on the relation between women's empowerment and work. Regression analysis was performed on the three indexes of evidence of empowerment; autonomy, decisions, financial and work-related autonomy indexes on job characteristics. Namely, the relation between indexes of empowerment and working for cash, work period, sector of economic activity, ownership of sector of economic activity, occupation, and index of job security were studied.

Results showed that Decisions and FWA indexes had a more clear relation than the autonomy index when it comes to their relation with job characteristics. This result confirms the conclusion drawn earlier that a *wide variety of women are having higher levels of autonomy* and the value of this index in defining empowerment should be taken with care.

When it comes to the decisions index, the time spent in the labor market, peasants working in agriculture sector, and higher levels of job security are associated with higher levels of this index more than the type of education itself.

The clearest patterns and relations are evident for the index of financial and work-related autonomy with respondents working in jobs requiring higher skills, having high levels of security, government sector, working in services and education having the highest levels of FWA according to this index.

Participation in social and organizational activities
Respondents who said that they participate in either social or organizational activities seemed to have higher levels of autonomy with 38% at the top quartile of the index (Figure 6). They also have very high levels of financial and work-related autonomy (54% at the top quartile), but seemed to have lower levels of involvement in decision-making process within their households where only 18% fell in the top quartile of the index.

Gender and work-related values
The relation between having positive gender values, as represented by having higher scores in the gender values (GV) index, and degrees of empowerment is most clear for financial and work-related autonomy index where 33% of respondents having the highest scores in the GV index also have the highest score in the financial and work-related autonomy index (Figure 7). On the other hand, 37% of those at the lowest two GV quartile were at the lowest quartile of the decisions index.

Also, 32% and 24% of those having the highest GV have the highest scores in the autonomy and decisions indexes respectively. On the other hand, the relation is not that evident for those in the middle levels of the GV index.

When it comes to work-related values (Figure 8), the relation is not straight forward at all. For example, unexpectedly, 41% and 35% of those who had totally negative work-related values (scored zero) were in the top quartile in the autonomy and decisions indexes respectively compared to 16% in the same category of the financial and work-related autonomy index.

Expectedly, the financial and work-related autonomy index showed the most consistent relation with 32% of those having the highest scores in the work-related values index falling in the top quartile of the financial and work-related autonomy index. Also 30% and 22% of those at the top of the work-related indexes were at the top of the autonomy and decisions indexes respectively.

Figure 6: Distribution of Respondents who Participate in Social and Organizational Activities according to Quartiles of Empowerment Indexes

Figure 7: Distribution of Index of Gender Values (GV) according to Quartiles of Empowerment Indexes


Distribution of Index of Gender Values according to Autonomy Index

Distribution of Index of Gender Values according to Decisions Index

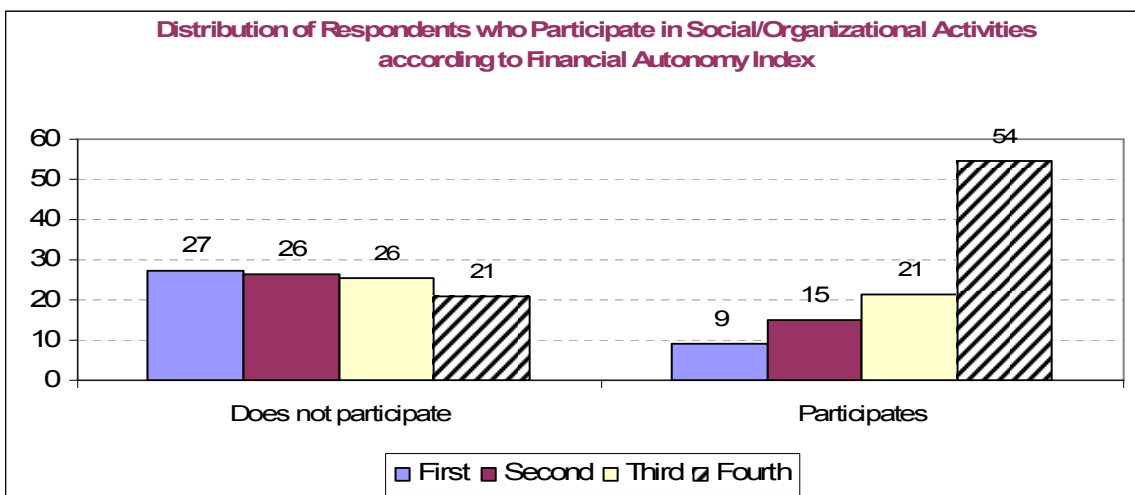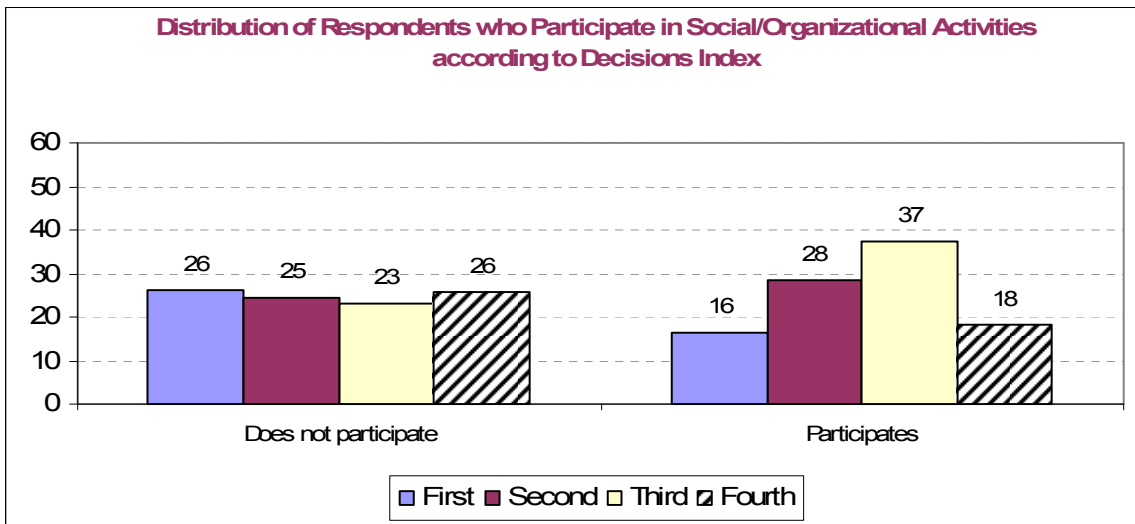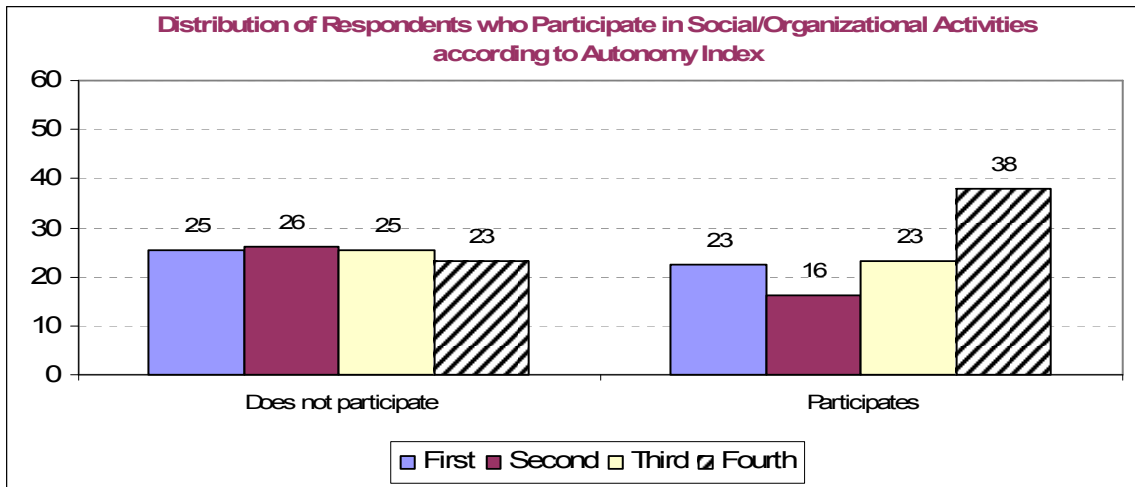Distribution of Index of Gender Values according to Financial Autonomy Index
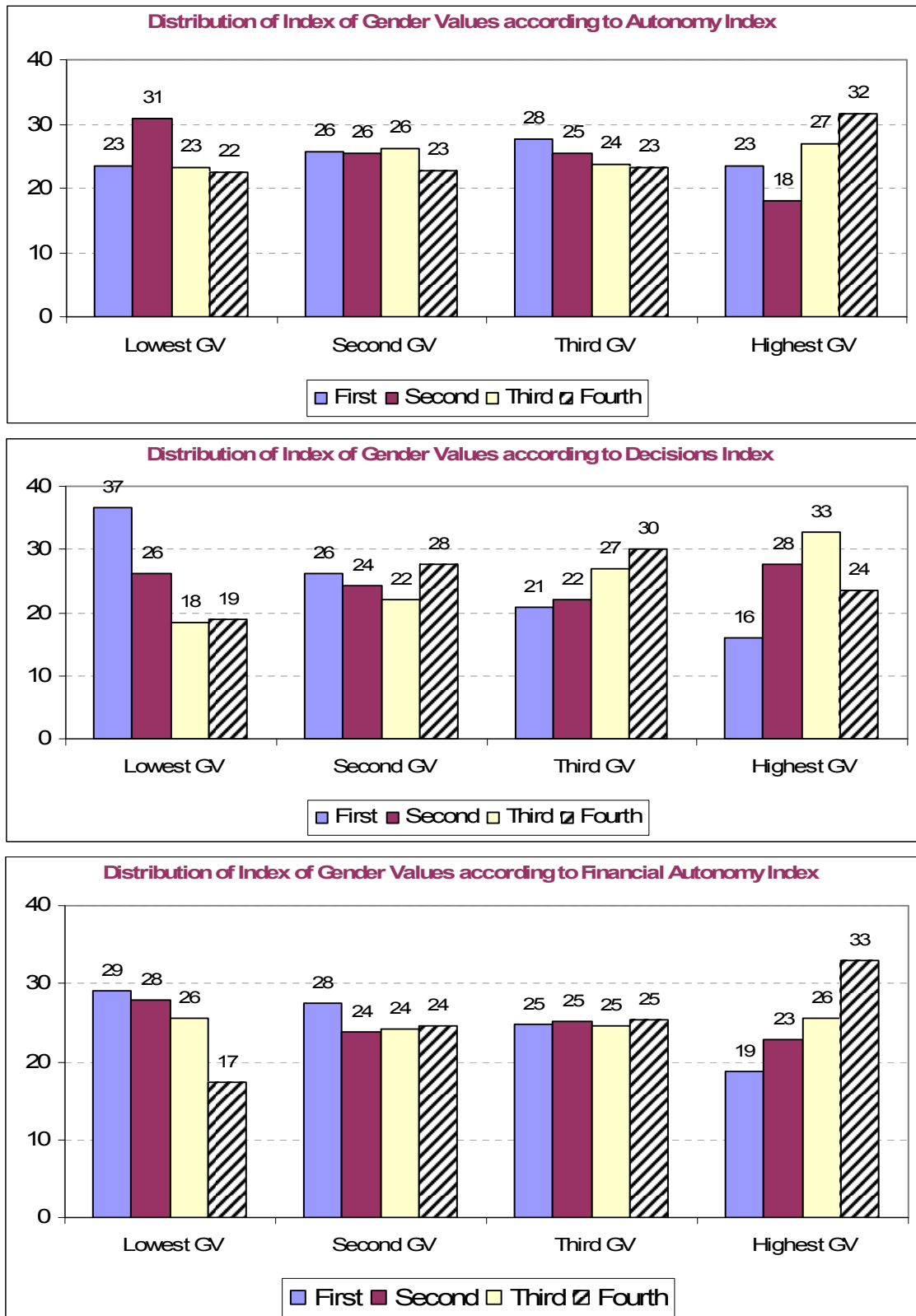
Figure 8: Distribution of Index of Work-related Values according to Quartiles of Empowerment Indexes
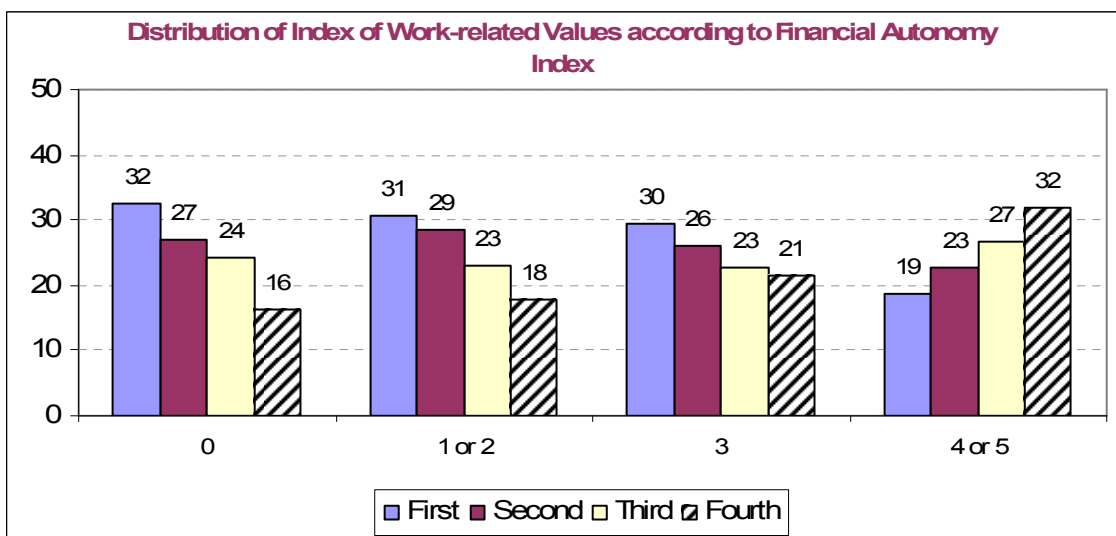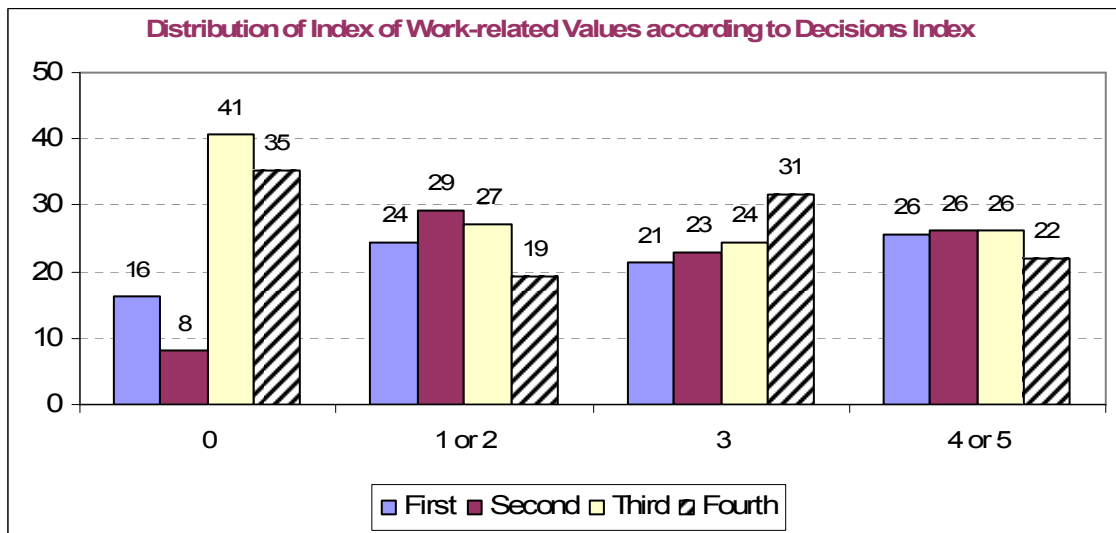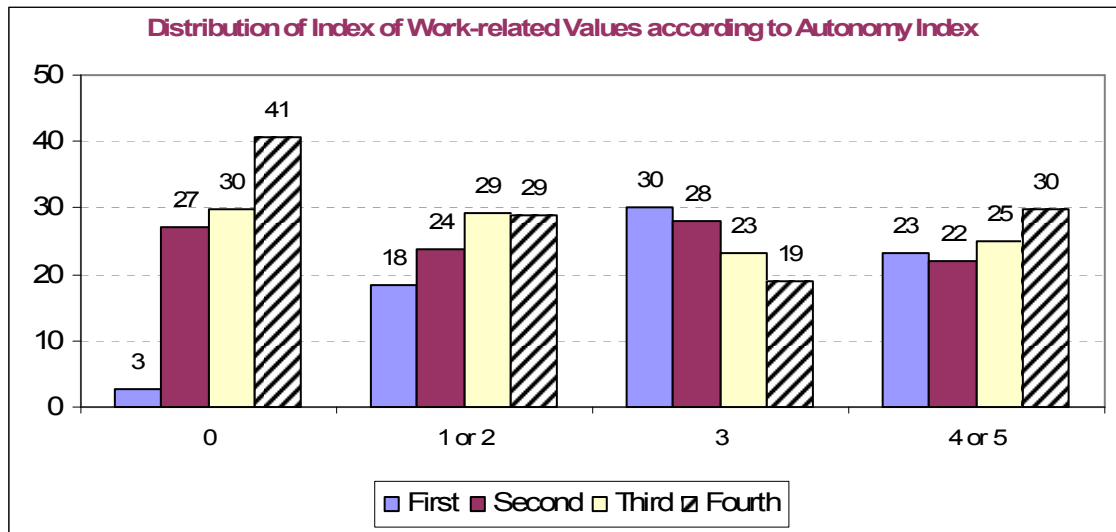
Other sources
When it comes to the other sources considered, most of them had a very low explanatory power. Number of living sons and daughters did not show a significant relation with the indexes of empowerment except for the decisions index. Respondents having two living sons had higher scores in the decisions index (36% at the top quartile) while 30% of those having 3 or more living sons were at the top quartile of this index. 28% of those having two living daughters were at the top quartile of the decisions index while 33% of those having three or more daughters were at the highest quartile.

Husband's education was actually showing an inverse relation with the autonomy index, while high levels of husband's education were associated with an increase in both the decisions and FWA indexes.

As for marital status, in general married women had the least level of autonomy, while both married and divorced had the lowest levels in the decisions index. Marital status did not show a significant relation with financial and work-related autonomy index.

Husband being a relative was inversely related to both the decisions, and financial and work-related autonomy indexes

An increase in spousal age difference was associated with an increase in the autonomy index. Also, an increase in the spousal educational differences was associated with lower scores in all three indexes of empowerment.

When it comes to age, the older the respondent the higher the degree of empowerment as represented by the three generated indexes. The same result applies for age at first marriage.

Ownership of assets is associated with respondents having more say in decisions within their households. It is also associated with higher levels of financial and work-related autonomy.

To sum up, most potential sources of empowerment did *not show a consistent relation* across all three indexes but rather a changing pattern from one index to another. *Financial and work-related autonomy index* seemed to have more interpretable results compared to the other two indexes which sometimes showed unexpected patterns or the lack thereof. Autonomy index was the one showing the least consistent patterns.

In general, highest levels of SES, a university education or higher, work for cash for longer periods, higher levels of job security and participation in social and organizational activities as well as husband having university education or higher as well as ownership of assets and positive gender values seemed to be the most important sources helping in empowering women (scoring higher in the empowerment indexes-specially FWAI).

8. Discussion and Conclusion

Empowerment
Results show that fewer respondents are empowered from the dimension of autonomy, while more respondents are empowered when it comes to involvement in decision-making. Financial and work-related autonomy falls in the middle. In all three indexes, only few of the respondents showed high (top) levels of empowerment.

Multidimensionality
Empowerment is a multidimensional process as evident from the indexes of empowerment created. In our analysis, this multidimensionality was reflected by three dimensions; autonomy, involvement in decision-making, financial and work-related autonomy. This multidimensionality makes the process complex and creating one index to summarize the whole process will hide the dynamics that lie within such multidimensionality. Acquiring higher levels of empowerment in one dimension does not necessarily imply acquiring it on the other dimensions.

Relation between potential sources and evidence of empowerment
The relation between potential sources and evidence of empowerment is not straight forward; it varies depending on the source and evidence under investigation. The relation between potential sources and evidence of empowerment is more evident for the financial and work-related autonomy index.

Discussion and policy highlights
The multidimensionality of empowerment shown in the analysis implies that policies targeting women's empowerment should work simultaneously on different dimensions rather than the ultimate focus on the economic dimension. The economic dimension is shown to be an important dimension of empowerment as shown by financial and work-related autonomy, but its acquisition does not necessarily translate into higher levels of empowerment in the dimensions of autonomy and involvement in decision-making.

Despite, the inconsistent pattern between potential sources and evidence of empowerment, some of these sources stood out as having a positive correlation with women's empowerment. This correlation is not necessarily with the same magnitude in all dimensions. The same sources were also highlighted in profiling women having higher perceptions of their lives as well as those where both theoretically and self-defined indexes agreed. These sources are: having *university education or higher as well as their husbands*, having *highest levels of SES*, *participating in social and organizational activities*, and *ownership of assets*.

In general *working for cash* was associated with higher levels in all indexes. When it comes to the specific *characteristics of the job* that empowers women, longer periods in the labor market, and higher job securities reflected on better scoring on all indexes. Type of sector and certain occupations reflected better on the financial and work related autonomy index followed by decisions index more than on autonomy dimension of empowerment.

The importance of high-skilled labor and higher levels of job securities on empowering women is a relation that must not be ignored. Women working in jobs requiring lower level of skills and lacking the job security do not seem to benefit from their entrance into the labor market from several dimensions of empowerment.

This result highlights again the importance of *education* as well as appropriate *training* for the labor market. It also requires better *regulations and enforcements of the laws organizing the labor market* to ensure their job security.

The previous results imply that policies aiming at empowering women should be incorporated with other policies; that is they should be multifaceted. They need to incorporate policies targeting higher levels of education for both males and females as well as those working on poverty alleviation.

The role of networking for women is also highlighted through the importance of participation in social or organizational activities as well as through gender and work-related values. The latter highlighted the dominant culture in women's spheres.

Encouraging women to participate in social or organizational activities requires more coordination with NGOs in different regions since they have a better ability to reach out for women and can build a circle of trust more easily amongst women themselves and these organizations. Such a relation could be used to help in building up networks among women themselves, educating them and help in defying dominant culture values.

Large effort is needed in mass media to achieve long-term changes in gender-related values. But one has to note though that the effect of these values is not as significant as expected since they sometimes reflect aspiration rather than implementation.

Finally, regions of upper Egypt, as represented here by Menya, seem to be systematically falling behind on different dimensions of women's empowerment and policies with tailored regional focus are needed.

Bibliography

Alsop, R. and Heinsohn, N. *Measuring empowerment in practice: Structuring analysis and framing indicators*, World Bank Policy Research Working Paper 3510, 2005.

El-Sheneity, S. *Work and women's empowerment in Egypt*. Analytical report submitted to UNIFEM (unpublished), 2009.

El-Zanaty, F., Hussein, E.M., Shawky, G.A. Way, A.A. & Kishor, S. Egypt Demographic and Health Survey. Cairo: National Population Council, 1995

-----------------------. Demographic and Health Survey. Cairo: National Population Council, 2002

Govindasamy, P. and Malhotra, A. *Women's position and family planning in Egypt*, Studies in Family Planning 27, no. 6, 1996: 328-40.

Jejeebhoy, S. *Women's autonomy in rural India: Its dimensions, determinants and the influence of context*, Women's empowerment and demographic processes, moving beyond Cairo, 2000: 1-15.

Kabeer, N. *Reflections on the measurement of women's empowerment*, Discussing women's empowerment - theory and practice, 2000: 17-56.

Kishor, S. *Empowerment of women in Egypt and links to the survival and health of their infants*, Women's empowerment and demographic processes, moving beyond Cairo, 2000: 1-15.

_____ *Women's contraceptive use in Egypt: What do direct measurements of empowerment tell us?* 2000

Malhotra, A. and M. Mather. *Do schooling and work empower women in developing countries? gender and domestic decisions in Sri Lanka*, Sociological forum 12, no. 4, 1997: 599-630.

Malhotra, A. and Schuler, S.R. "*Women's Empowerment as a variable in International development*" in Narayan, D. (ed.) *Measuring empowerment: Cross-disciplinary perspectives*. World Bank, 2005: 71-88.

Rastogi, S. and K. Nguyen. *Women's status and contraceptive use in Egypt*. Paper presented at the annual meeting of the population Association of America, March 30-April 1st, Philadelphea, Pennsylvania", 2005.

Sen, G. and Batliwala, S. *Empowering women for reproductive rights*, Women's empowerment and demographic processes, moving beyond Cairo, 2000: 1-15.

Sen, G. *Empowerment as an approach to poverty*, Human development papers 1997.

Annex (Section A)

Figure A.1: Framework for studying women empowerment in Egypt

Indirect Indicators (Sources) of Empowerment

On the household level
A. Individual Sources
- Age at first marriage
- Education
- Employment
- Assets
- Gender values

B. Other Sources
- Background of own family
- Living arrangements
- Area of residence
- Spouse background
- Spousal competency

On the community/state level
A. Accessibility of service/institution
- Justice (formal and informal) and political
- Other social
- Labor market

B. Utilization of service/institution by other women in community
- Justice (formal and informal) and political
- Other social
- Labor market

C. Dominant Gender values

Direct Indicators (Evidence) of Empowerment

On the household level
- Strategic life choices
- Non-strategic life choices
- Control over resources
- Personal space/support
- Life skills

On the community/state level
- Utilization of justice (formal and informal) and political services/institutions
- Utilization of other social services/institutions
- Utilization of labor market

Figure A.2: Direct indicators (Evidence) of Empowerment

On the *household* level, they could be categorized into five different groups:

1. Strategic life choices are less frequent in occurrence but can provide strong evidence in favor or against empowerment. Indicators in this subgroup include:
   a) positive involvement in decision of work before marriage,
   b) positive role in marriage decision,
   c) positive role in marriage process,
   d) positive involvement in living arrangements,
   e) positive involvement in fertility-related decisions,
   f) positive involvement in decision of work after marriage,
   g) positive involvement in the divorce decision (if divorced),
   h) ability to acquire assets (decision and implementation).

2. Non-strategic life choices are those that involve daily life decisions, besides other non daily choices as well as control over oneself and body. They include:
   a) unrestricted mobility,
   b) gain of non-financial benefits from work (if working/worked)
   c) taking action to eliminate violence inflicted on her,
   d) positive involvement in decision making related to spousal sexual relation,
   e) positive involvement in other decision makings,

3. Control over resources reflects woman's control over different resources accessible to her. These are:
   a) control over income before marriage (if worked),
   b) control over income after marriage (if working/worked),
   c) control over household budget,
   d) control over other sources of income/assets that she owns.

4. Personal space/support
   a) having leisure time,
   b) getting the help she needs in daily chores within affordability,
   c) getting the help she needs for child/elderly care within affordability,
   d) getting the help she needs for any health problem within affordability.
   e) getting the help she needs when violence is inflicted on her.

5. Life skills mainly reflect if she can manage on her own without the need for a male-support. This includes issues of mobility and accessing different services as well as financial independence. These indicators include:
   a) self dependence,
   b) managing well on her own after divorce (if divorced),
   c) managing well on her own after widowhood (if widowed),

Figure A.2 (cont'd): Direct indicators (Evidence) of Empowerment

On the *community/state* level

1. Utilization of justice (formal and informal) and political services/institutions with fair treatment and outcome. That is:
    a) got divorced when she wanted (if divorced),
    b) got divorced without relinquishing any of her rights (if divorced),
    c) found the legal process of divorce satisfactory (if divorced),
    d) utilized the justice system with fair treatment and output for non marital problems,
    e) was not cheated out of her inheritance (if widowed),
    f) participates in different forms of political life,
2. Utilization of other social services/institutions
    a) receives satisfactory maintenance from ex-husband (if divorced),
    b) receives social payments easily (if widowed),
    c) participates in organizations,
    d) utilizes health system with satisfactory achievements,
    e) utilizes credit resources with positive achievement,
    f) utilizes the education system for her children.
3. Utilization of labor market means that accessing the labor market with positive achievement. That is whether she tried to work and managed to find a decent job.

Figure A.3: Indirect indicators (Potential Sources) of Empowerment

On the *household* level, they include:

1. Individual Sources
   a) reasonable age at first marriage,
   b) higher level of education
   c) work experience (before and/or after marriage),
   d) ownership of assets including marital assets, other material assets as well as other non material ones (informational, organizational, and psychological),
   e) positive gender values including opinions about gender roles/relations and exit routes to marital problems.

2. Other Sources
   a) Background of own family:
      - parents education,
      - parents occupation,
      - parents marital status at time of her marriage,
      - siblings education,
   b) Living arrangements (both at time of marriage and current one).
   c) Area of residence
   d) Spouse background (education and occupation),
   e) Spousal compatibility in terms of age, education and occupation; i.e. spouse age and educational difference.

On the *community/state* level

1. Accessibility of service/institution
   a) Justice (formal and informal) and political
      - easily accessible justice system for marital problems,
      - easily accessible justice system for non-marital problems,
      - easily accessible political system (ability to participate in elections is an example),
   b) Other social
      - Easily accessible quality affordable health services
      - Easily accessible credit resources
      - Easily accessible schools
   c) Easily accessible labor market with wide range of opportunities.

2. Utilization of service/institution by other women in community
   a) Justice (formal and informal) and political
   b) Other social
   c) Labor market

Figure A.3 (cont'd): Indirect indicators (Potential Sources) of Empowerment

3. Dominant gender values are positive. Examples of such values are:
   a) Women should not be subject to different forms of violence,
   b) They should take action to eliminate violence inflicted on them,
   c) Husband should help his wife in housework,
   d) Women should be involved in different decisions within their families,
   e) Both husband and wife are responsible for child care,
   f) Women have the right to work and control their earnings,
   g) Both husband and wife should have equal routes in handling different marital problems.

SECTION B

Table B.1: Distribution of successfully completed interviews by residence

Governorate	Kism/Markaz	Hay/Village	Number		
			House-Holds	Ever married	Never married
Cairo	Masr Kadima	Anwar and Eshash Baroud	200	198	10
	Wayly	Demerdash	200	192	20
	Than Madinat Nasr	Sadess	200	195	25
	Basateen	Ezbat Gebreel	200	195	14
Subtotal			**800**	**780**	**69**
Sharkeyah	Menya Kamh	Abou Towala	301	300	5
		Hameedeyah	301	295	12
	Bilbees	Bilbees	200	198	6
Subtotal			**802**	**793**	**23**
Menya	Edwa	Safaneyah	300	300	11
		Kafr Mahdy	300	300	10
	Samaloot	Samaloot	200	199	17
Subtotal			**800**	**799**	**38**
Total			**2402**	**2372**	**130**

Table B.2: Distribution of sample according to urban and rural residence

Governorate	Rural	Urban	Total
Cairo	0	3,708	3,708
%	0	100	100
% in Census	0	100	100
Sharkeyah	3,028	909	3,937
%	77	23	100.00
Lower Egypt (% in Census)	76	24	100
Menya	3,915	1,166	5,081
	77	23	100.00
Upper Egypt (% in Census)	80	20	100
Total	6,943	5,783	12,726
%	55	45	100
Egypt (% in Census)	58	42	100

Table B.3: Background of ever married respondents

	Cairo			Sharkeyah			Menya			Total		
	Non Screened	Screened	Total	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total
Age												
15-19	0	0	0.00	1.01	4.37	3.53	2.01	4.83	4.13	0.51	4.60	2.57
20-24	6.36	2.84	4.62	10.10	16.47	14.88	12.56	19.67	17.90	6.88	18.08	12.52
25-29	12.72	8.79	10.77	15.66	20.17	19.04	15.08	14.50	14.64	12.32	17.32	14.84
30-34	15.52	10.59	13.08	19.19	14.62	15.76	16.58	14.00	14.64	14.70	14.31	14.50
35-39	13.99	13.44	13.72	12.63	13.95	13.62	10.55	12.67	12.14	13.00	13.31	13.15
40-44	13.99	20.67	17.31	14.65	10.76	11.73	12.06	13.00	12.77	15.97	11.88	13.91
45-49	12.47	19.64	16.03	7.58	8.24	8.07	11.56	8.17	9.01	13.85	8.20	11.00
50-54	12.72	12.66	12.69	10.61	5.88	7.06	9.55	6.33	7.13	11.81	6.11	8.94
55-60	12.21	11.37	11.79	8.59	5.55	6.31	10.05	6.83	7.63	10.96	6.19	8.56
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Marital Status												
Married	81.93	86.56	84.23	85.86	92.77	91.05	86.43	89.00	88.36	84.88	90.88	87.90
Separated	2.29	0.78	1.54	1.52	0.67	0.88	1.01	0.50	0.63	1.44	0.59	1.01
Divorced	4.58	4.65	4.62	1.01	0.50	0.63	2.01	2.50	2.38	3.57	1.51	2.53
Widowed	11.2	8.01	9.62	11.62	6.05	7.44	10.55	8.00	8.64	10.11	7.03	8.56
Total	100	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Number of Marriages												
1	91.09	96.9	93.97	92.93	96.64	95.71	96.48	92.33	93.37	94.22	94.48	94.35
2	7.89	2.84	5.38	5.56	3.36	3.91	3.52	7.33	6.38	5.10	5.36	5.23
3+	1.01	0.26	0.64	1.52	0.00	0.38	0.00	0.33	0.25	0.68	0.17	0.42
Total	100	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Ever Divorced	11.2	6.72	8.97	6.06	3.70	4.29	4.02	8.33	7.26	7.65	6.03	6.83
Ever Widowed	13.23	8.27	10.77	13.13	6.22	7.94	12.06	9.00	9.76	11.38	7.62	9.49
Number of children												
0	6.36	9.3	7.82	4.55	4.03	4.16	8.04	8.50	8.39	7.31	6.28	6.79
1	10.94	10.34	10.64	11.11	16.64	15.26	8.54	9.50	9.26	10.37	13.05	11.72
2	21.12	34.11	27.56	18.69	17.31	17.65	14.07	12.00	12.52	23.79	14.64	19.18
3	24.43	29.72	27.05	21.72	23.70	23.20	22.11	13.00	15.27	25.32	18.33	21.80
4	16.54	11.63	14.10	19.19	13.28	14.75	11.56	16.33	15.14	14.53	14.81	14.67
5+	20.6	4.92	12.82	24.75	25.04	24.97	35.68	40.67	39.42	18.69	32.89	25.84
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Attended School	82.19	95.35	88.72	77.27	68.91	71.00	52.76	41.50	44.31	80.71	55.15	67.83
Education												
None	17.81	4.65	11.28	22.73	31.09	29.00	47.24	58.50	55.69	19.29	44.85	32.17
Primary	30.53	1.29	16.03	27.27	22.52	23.71	15.08	20.33	19.02	17.76	21.42	19.60
Preparatory	10.94	0.52	5.77	8.59	10.08	9.71	6.53	3.33	4.13	6.37	6.69	6.53
Secondary	30.28	26.61	28.46	32.83	30.76	31.27	26.13	16.00	18.52	28.80	23.35	26.05
Higher	10.43	66.93	38.46	8.59	5.55	6.31	5.03	1.83	2.63	27.78	3.68	15.64
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
N	393	387	780	198	595	793	199	600	799	1,177	1,195	2,372
Reasons for quitting/ not going to school												
Don't like school	25.41	6.90	23.44	28.95	23.75	24.95	15.00	14.17	14.35	22.39	18.36	19.89
Norms	14.34	37.93	16.85	13.16	21.11	19.27	28.57	26.90	27.27	19.17	24.36	22.40
Can't afford it	19.26	31.03	20.51	19.30	17.94	18.26	18.57	28.34	26.16	19.73	23.79	22.25
Help in childcare	12.7	3.45	11.72	11.4	13.29	10.55	11.43	13.14	12.76	11.89	11.57	11.77
Help in housework	7.38	13.79	8.06	10.53	9.5	9.74	9.29	7.39	7.81	8.31	8.92	8.54
N	244	29	273	114	379	493	140	487	627	527	866	1,393

SECTION C

Table C.1: Description of direct indicators of empowerment

INDICATOR DESCRIPTION	MEAN	S.D.
Involved in decision of living arrangement at 1st marriage?	0.54	0.50
Involved in decision to work?	0.35	0.48
Have non financial benefits of work?	0.08	0.28
Free to open savings/bank account?	0.33	0.47
Have a bank/savings account?	0.17	0.38
Free to manage Bank/savings account?	0.15	0.36
Involved in decision of HH purchase: consumer durables?	0.74	0.44
Involved in decision of HH purchase: assets?	0.70	0.46
Free to manage budget: buy clothes for herself?	0.56	0.50
Free to manage budget: seek healthcare for herself?	0.55	0.50
Have daughters in marriage age and consulted in their marriage?	0.13	0.34
Have sons in marriage age and consulted in their marriage?	0.11	0.31
Involved in decision of children's education?	0.65	0.48
Involved in decision of place of last delivery?	0.82	0.39
Involved in decision of having last child?	0.53	0.50
Need permission to seek medical consultation?	0.68	0.47
Doesn't go to health service alone: husband refuses?	0.66	0.47
Doesn't go to health service alone: other reasons?	0.06	0.24
Does leisure activities without permission?	0.30	0.46
Does leisure activities with permission?	0.68	0.47
Participates in voting: don't need permission?	0.11	0.32
Participates in voting: need permission?	0.14	0.35
Self dependent in voting (decides on candidate alone)?	0.15	0.35
Need permission to use services?	0.67	0.47
Need permission to borrow money?	0.71	0.45
Does daily chores and gets no help?	0.50	0.50
Does daily chores and gets help?	0.39	0.49
Does daily purchases and gets no help?	0.40	0.49
Does daily purchases and gets help?	0.38	0.49
Responsible for child study and gets no help?	0.37	0.48
Responsible for child study and gets help?	0.10	0.30
Responsible for child care and gets no help?	0.11	0.31
Responsible for child care and gets help?	0.45	0.50

Table C.2: Description of indirect indicators of empowerment

INDICATOR DESCRIPTION	MEAN	S.D.
Age in complete years 15-19	0.03	0.16
Age in complete years 20-24	0.13	0.33
Age in complete years 25-29	0.15	0.36
Age in complete years 30-34	0.15	0.35
Age in complete years 35-39	0.13	0.34
Age in complete years 40-44	0.14	0.35
Age in complete years 45-49	0.11	0.31
Age in complete years 50-54	0.09	0.29
Age in complete years 55-60	0.09	0.28
Number of Living Sons 0	0.21	0.41
Number of Living Sons 1	0.32	0.47
Number of Living Sons 2	0.28	0.45
Number of Living Sons 3+	0.19	0.39
Number of Living Daughters 0	0.23	0.42
Number of Living Daughters 1	0.34	0.47
Number of Living Daughters 2	0.23	0.42
Number of Living Daughters 3+	0.21	0.40
Marital status: Married	0.88	0.33
Marital status: Separated	0.01	0.10
Marital status: Divorced	0.03	0.16
Marital status: Widowed	0.09	0.28
Age at first marriage <15	0.08	0.26
Age at first marriage 15-19	0.46	0.50
Age at first marriage 20-24	0.31	0.46
Age at first marriage 25-29	0.12	0.33
Age at first marriage 30+	0.04	0.19
No education?	0.32	0.47
Primary education?	0.20	0.40
Preparatory education?	0.07	0.25
Secondary education?	0.26	0.44
Higher education?	0.16	0.36
Worked/working in the past 2 years?	0.36	0.48
Work period in years	0.41	0.75
Work in government sector?	0.16	0.37
Work in private sector?	0.19	0.39
Works for cash?	0.33	0.47
Continuous job?	0.23	0.42
Almost daily reads newspaper/magazines/..?	0.10	0.30
Use the internet?	0.05	0.21
Own assets?	0.49	0.50

Table C.2 (cont'd): Description of indirect indicators of empowerment

INDICATOR DESCRIPTION	MEAN	S.D.
Wife be patient if husb. is infertile but not vice versa?	0.37	0.48
Wife be patient if husb. does not respect her family but not vice versa?	0.17	0.37
Wife be patient if not happy with marital relation but not vice versa?	0.17	0.38
Wife be patient if husb. not able of sex but not vice versa?	0.16	0.37
Do something if husb. not take her opinion?	0.79	0.41
Do something if husb. not give enough money?	0.67	0.47
Do something if husb. sometimes beats her?	0.68	0.47
Do something if husb. always beats her?"	0.88	0.32
Do something if husb. marry someone else?	0.65	0.48
Do something if husb. flirts?	0.67	0.47
Do something if husb. departed her?	0.61	0.49
Do something if husb. always beats kids?	0.87	0.34
Do something if husb. not work regularly?	0.72	0.45
Do something if husb. spends too much time with friends?	0.78	0.41
Girl should not be circumcised?	0.26	0.44
Woman should take care of her health and not have many children?	0.99	0.10
Woman can use family planning method?	0.99	0.10
She should seek medical care if she was sick?	0.99	0.12
A husband should help his wife in housework?	0.53	0.50
Husb. should not make decisions without consulting with his wife?	0.90	0.29
Husb. does not have the right to prevent his wife from working?	0.31	0.46
If wife works, she does not have to give all or part of earnings to husb?	0.36	0.48
If husb. Wants another child, the wife does not have to have it?	0.46	0.50
Husb. is not the only one who has the final say in sons/daughters' marriages?	0.32	0.47
A working woman has more say in her household even if she works at home only?	0.78	0.41
A working woman has more say in her household if she works outside home?	0.80	0.40
A working woman can provide better care for her children?	0.48	0.50
A working woman can provide better care for her household?	0.49	0.50
A working woman can protect her virginity just like a non-working one?	0.88	0.32
Father Education: None	0.64	0.48
Father Education: Primary	0.10	0.30
Father Education: perpartory	0.06	0.23
Father Education: Secondery	0.08	0.28
Father Education: Higher	0.06	0.23
Father Education: Don't know	0.06	0.24

Table C.2 (cont'd): Description of indirect indicators of empowerment

INDICATOR DESCRIPTION	MEAN	S.D.
Last husband is a relative?	0.33	0.47
Husband's Education: None	0.19	0.39
Husband's Education: Primary	0.18	0.39
Husband's Education: perpartory	0.12	0.32
Husband's Education: Secondery	0.30	0.46
Husband's Education: Higher	0.21	0.41
Spousal education difference (levels) (Husband – wife)	0.42	1.11
Spousal age difference (Husband – wife)	6.85	6.10
Living alone now?	0.77	0.42

Table C.3: Factors for the dimensions of evidence of empowerment with the variables that are most correlated with them (factor loading of 0.4 or more)

Factor no.	Assigned factor label	Variables most correlated with the factor (loading 0.4 or more after rotation) and factor loading after rotation
1	Autonomy (Autonomy 1)	Free to open savings account (0.67) Need permision to seek medical consultation (-0.75) Does leisure activity without permission (0.85) Does leisure activity with permission (-0.87) Need permision to use services (-0.64) Need permision to borrow money (-0.69)
2	Daily help (Daily)	Does daily chores and gets no help (-0.84) Does daily chores and gets help (0.83) Does daily purchase and gets no help (-0.82) Does daily purchase and gets help (0.75) Responsible for child care and gets help (-0.40)
3	Involvement in Decisions (Decisions 1)	Involved in decision of living arrangement at marriage (0.46) Involved in decision of having last child (0.41) Involved in decision of HH purchase: consumer durables (0.84) Involved in decision of HH purchase: assets (0.84)
4	Financial and work-related autonomy (FinWork Aut)	Involved in decision to work (0.47) Non-financial benefits of work (0.46) Have a bank/savings account (0.91) Free to manage Bank/savings account (0.91)
5	Financial autonomy (Fin Aut)	Free to man. budget: buy clothes for herself (0.88) Free to man. budget: seek healthcare for herself (0.89)
6	Involvement in Decisions (Decisions 2)	Involved in decision of delivery place (last child) (0.50) Have daughters in marriage age and consulted in their marriage (0.50) Have sons in marriage age and consulted in their marriage (0.50) Involved in decision of children's education (0.68) Responsible for child study and gets no help (0.61)
7	Political partipation (Political Autonomy)	Participates in elections without permision (0.71) Participates in elections with permision (0.46) Self dependent in voting (0.93)
8	Autonomy (Autonomy 2)	Not go to health service alone b/c husband refuses (-0.76) Not go to health service alone for other reasons (0.73)

Table C.4: Description of the factors for evidence of empowerment

Factor no.	Assigned factor label	Factor description
1	Autonomy (Autonomy 1)	Factor 1 represents a dimension of autonomy that mainly relate to mobility and freedom to make non strategic choices. Having the freedom to open a savings or bank account, not needing a permission to do leisure activities, to use health services as well as other services, nor to borrow money are all correlated and could be used as an evidence of empowerment in Factor 1.
2	Daily help (Daily)	Factor 2 shows that women who are getting help with carrying out daily housework tasks are more advantaged than those who are not being assisted.
3	Involvement in Decisions (Decisions 1)	Involvement in decisions related to living arrangments at marriage, having the last child as well as involvement in decisions regarding buying household durables and assets are all correlated in Factor 3 and could be used as an evidence of empowerment.
4	Financial and work-related autonomy (FinWork Aut)	Factor 4 focuses on financial and work-related autonomy. It shows that having a bank or savings account and managing it, as well as work-related autonomy, which refers to involvement in the decision to work and having non-financial benefits of work are all correlated.
5	Financial autonomy (Fin Aut)	Factor 5 focuses on managing household budget; namely being able to freely buy things for herself and having the freedom to seek medical consultation for herself.
6	Involvement in Decisions (Decisions 2)	Involvement in decisions of place of last delivery and being consulted in sons' and daughters' marriages are all correlated in Factor 6.
7	Political partipation (Political Autonomy)	Factor 7 shows that participation in elections (both with and without the need for permission) as well as self dependence in deciding on who to vote for are correlated.
8	Autonomy (Autonomy 2)	Factor 8 highlights another dimension of autonomy that reflects the ability to go to health services.

Table C.5: Factors for the opinions on spousal relations and reaction to different marital problems with the variables that are most correlated with them (factor loading of 0.4 or more)

Factor no.	Assigned factor label	Variables most correlated with the factor (loading 0.4 or more after rotation) and factor loading after rotation
1	Oppose stereotypes on spousal relations (OppStereo)	Husb. does not have the right to prevent his wife from working? (0.74) If wife works, she does not have ot give all or part earnings to husb? (0.69) If husb. wants another child, the wife does not have to bear it? (0.66) Husb is not the only one who has the final say in sons/daughters' marriages? (0.76) Girls should not be circumcised (0.40)
2	Health care for women (Health)	A woman should take care of her health and not have many children? (0.80) A woman can use family planning method? (0.90) She should seek medical care if she was sick? (0.84)
3	Reaction to marital Problems (RMP 1)	Do something if husb always beats kids? (0.73) Do something if husb not work regularly? (0.81) Do something if husb spends too much time with friends? (0.70)
4	Reaction to marital problems (RMP 2)	Do something if husb marry someone else? (0.72) Do something if husb flirts? (0.75) Do something if husband departed her (0.59)
5	Reaction to marital problems (RMP 3)	Do something if husb not take her opinion? (0.82) Do something if husb not give enough money? (0.52) Wife patient if husb. not respect her family but not vice versa? (-0.82)
6	Reaction to marital problems (RMP 4)	Wife patient if husb. Infertile but not vice versa (0.65) Do something if husb sometimes beats her? (0.53) Do something if husb always beats her? (0.55) Husb. should take his wife's opinion into consideration (0.40)
7	Reaction to marital Problems (RMP 5)	Wife patient of not happy with marital relation but not vice versa (0.71) Wife patient of husband is sick but not vice versa (0.81)

Table C.6: Description of the factors for opinions on spousal relations and reaction to different marital problems

Factor no.	Assigned factor label	Factor description
1	Oppose stereotypes on spousal relations (OppStereo)	Factor 1 mainly highlights the respondent's views on stereotyped norms about marital relations and gender roles that give husbands more advantages in spousal relations. These stereotypes include: husband's right to prevent his wife from working, working women giving part or all of their earnings to their spouses, wife must bear another child if the husband desires one and husband having the final say in sons and daughter's marriages. It also shows that these views are also correlated with opposing female circumcision.
2	Health care for women (Health)	Factor 2 concerns health and fertility related behaviors like women's taking care of their health and not bearing too many children, using contraceptives and seeking medical consultation when sick.
3	Reaction to marital Problems (RMP 1)	Factor 3 focuses on women's responses in particular situations of marital conflicts such as spouse's beating of children, his unemployment, or his failure to devote adequate time to the family
4	Reaction to marital Problems (RMP 2)	Factor 4 highlights attitudes and reactions towards other marital problems like husband's marriage to someone else, flirting with other women or abandonment.
5	Reaction to marital Problems (RMP 3)	Factor 5 shows the correlation between respondent's difference in responses towards husband's not respecting wife's family and vice versa, possible reactions if he does not take her opinion into consideration in decision making and not giving her enough money.
6	Reaction to marital Problems (RMP 4)	Factor 6 stresses the correlation between respondents' difference in attitudes towards husband's infertility compared to wife's infertility and possible reaction to domestic violence.
7	Reaction to marital Problems (RMP 5)	Factor 7 shows the correlation between difference in responses towards being unhappy with the marital relation or being unable to pursue it for both husband and wife.

Table C.7: Regression of the index of household socioeconomic status on region of residence

```
      Source |       SS       df       MS              Number of obs =    2341
-------------+------------------------------           F(  5,  2335) = 1090.58
       Model | 1636.95909      5  327.391817           Prob > F      =  0.0000
    Residual | 700.963813   2335  .300198635           R-squared     =  0.7002
-------------+------------------------------           Adj R-squared =  0.6995
       Total |  2337.9229   2340   .99911235           Root MSE      =   .5479


------------------------------------------------------------------------------
         SES |     Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
                       Cairo-non screened (Ref.)
Cairo-Screened |  1.331462   .0393626    33.83   0.000     1.254273    1.408651
Sharkeyah-Urban | -.2924324   .0479329    -6.10   0.000    -.3864278    -.198437
Sharkeyah-Rural | -.8507499   .0358003   -23.76   0.000    -.9209535    -.7805463
Menya-Urban    | -.9839202   .0477728   -20.60   0.000    -1.077602    -.8902386
Menay-Rural    | -1.028523    .035947   -28.61   0.000    -1.099014    -.9580317
Constant       |  .3521744   .0278156    12.66   0.000     .2976285     .4067203
------------------------------------------------------------------------------
```